GREAT NORTHERN's TATER-FRATERS ... p.32

December 15, 1969

RAILWAY AGE

THE TRANSPORTATION WEEKLY

McCARTNEY LIBRARY
GENEVA COLLEGE

The strange case of NP's "Mainstreeter"

The train the ICC won't let die ... p. 23

"Metroliner" revisited

An early skeptic changes his mind ... p. 30

RD70 1116
McCARTNEY LIBRARY
GENEVA COLLEGE
BEAVER FALLS PENN 15010

Trailer Train Company, developer of mass piggybacking, is the leader in supplying cars for the movement of new automobiles. Now it's looking to the next challenge.

Trailer-Train is the largest user of Timken® "AP" railroad bearings in the world. Over 33,000 TTX flat cars roll trouble-free on Timken "AP" railroad bearings. Time is saved, operating costs are cut.

Tough, case-carburized Timken tapered roller bearings are made from Timken fine alloy steel and meet high mileage inspection requirements easily. Many have rolled 600,000 miles or more—and keep right on rolling.

The Timken Roller Bearing Company, Canton, Ohio. Timken bearings sold in 133 countries. Manufacturing in Australia, Brazil, Canada, England, France, South Africa and the U.S.A.

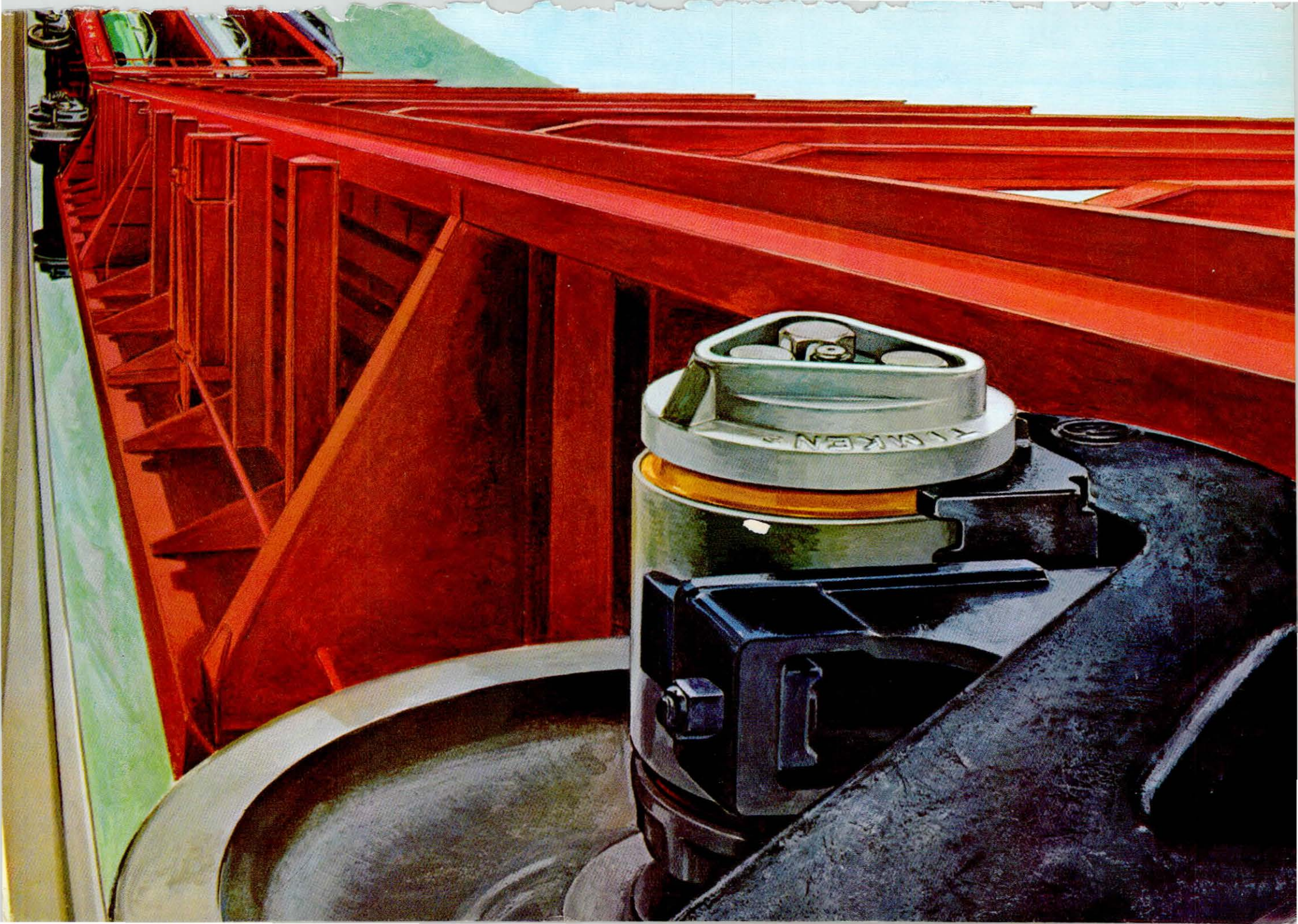
TIMKEN®

REGISTERED TRADEMARK

TAPERED ROLLER BEARINGS

TTX rounds the bend into the next booming age of railroading on Timken® "AP" bearings.

GOING PLACES FAST

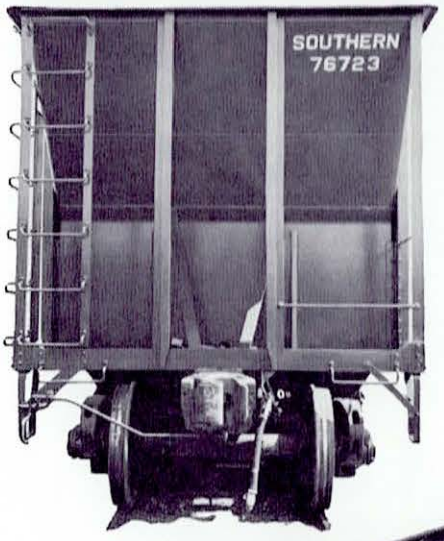

TIMKEN

SOUTHERN

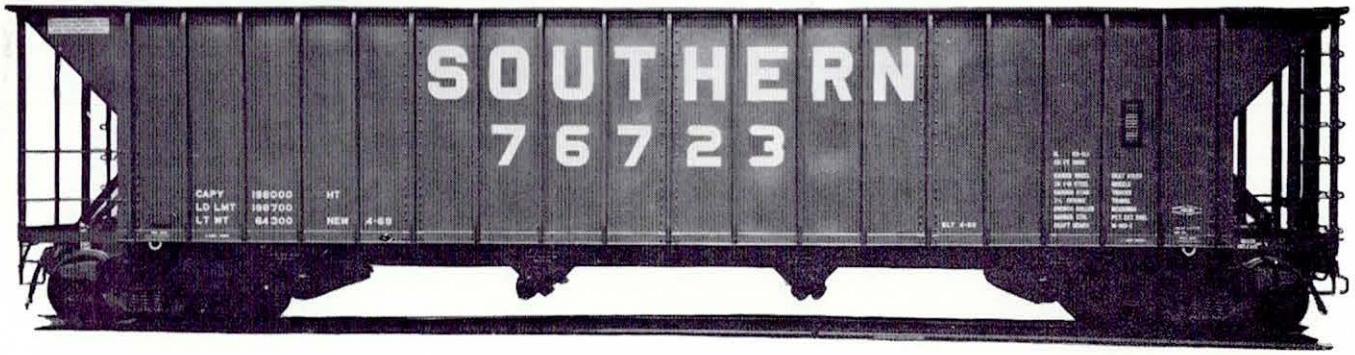
gives the green light to coal.

And these big Greenville hoppers help. Of welded design and riveted at the cross ridge and bolster area, with rigidized side sheets, these hoppers utilize high-strength materials throughout. Constructed so securely, the cars withstood a solid hour in the shaker without popping a single rivet or breaking a weld. The 45° slope sheets assure fast discharge through quadruple hoppers, with no hang-ups.

Hopper cars for unit coal train service or general duty have become a Greenville specialty. As the number of coal-fired generating stations continues to grow, an increasing number of Railroads, Utilities and Coal Producers have placed Greenville unit trains in service. Greenville understands the requirements and economics. If you're talking hopper cars for general service or unit train operation, your first step should be a call to Greenville . . . 412-588-7000.



GREENVILLE **STEEL CAR COMPANY**
Subsidiary of Pittsburgh Forgings Company
GREENVILLE, PENNSYLVANIA



RAILWAY AGE

December 15, 1969 • Vol. 167, No. 23

THIS WEEK

23 The strange case of NP's "Mainstreeter"
For all practical purposes it's dead, but the ICC keeps it going.

30 A consultant admits he was wrong
He was wrong about the Metroliners, and here's what he thinks now.

32 New potato car has huge capacity
Tater-Frater could become an industry standard for hauling potatoes.

34 Railroad rates disturb scrap shippers
The shippers like railroads, but they have some complaints.

46 Viewpoint—What can we learn from the sober 60s?
New business—the right kind—will be the railroads' salvation.

DEPARTMENTS

27	As the Editor Sees It	40	People in the News
41	Freight Carloadings	7	Short and Significant
12	Lines on Labor	46	Viewpoint
8	Monday Morning Report	33	Watching Washington
41	New Equipment	9	Week at a Glance
37	New Products Report	44	You Ought to Know

. . . AND COMING NEXT WEEK

TOMORROW's RAILROADS No. 12: The concluding installment in this Golden Spike Centennial Year series summarizes the steps that need to be taken to create 21st century transportation. Also: How shippers View 1970—in terms of their own traffic projections, and how much of this traffic they will put on the rails. The next Railway Age—a two-in-one issue—will be dated Dec. 22/29. It will be mailed Dec. 19. Like all Freight Traffic issues, it will go to 10,000 industrial traffic managers, in addition to the regular subscription list.

Editorial and Executive Offices
New York, N.Y. 10007, 30 Church St.

ROBERT G. LEWIS: Publisher
LUTHER S. MILLER: Editor
FRED C. MILES: Executive Editor

Mechanical: Fred N. Houser
Associate Editor: Philip Harrison
Car & Locomotive Cyclopedia:
Charles L. Combes
Art Director: Maurice H. Mates
Art Editor: Marvin Friedman
Editorial Assistant: June Meyer
Market Research: Robert N. Paltos
Librarian: Edith C. Stone
Production Manager: Fred B. Hecht
Manager—Contract Department:
Constance Nicolai

Editorial and Executive Offices
Chicago, Ill. 60602, 29 E. Madison St.

C. JAMES FISHER: Vice President—Sales
GUS WELTY: Senior Editor
Mechanical: Robert D. Bartley
Engineering:
Merwin H. Dick R. E. Dove
Signaling & Communications:
Robert W. McKnight
Editorial Assistant: Wanda Brown

Washington, D.C. 20004,
National Press Bldg.
Washington Editor: Frank Malone

Brighton, Sussex, England
8 St. George's Place
International Editor:
John Levett

Contributing Editors:
Norman E. Gillespie
3205 Chelsea
Orlando, Florida 32803

Charles Layng
6019 Nashua Ave.
Orlando, Florida 32809

E. L. Woodward
876 Chattanooga Ave.
Pacific Palisades, Calif. 90272

GEORGE DUSENBURY: Editorial Director

FOR LIST OF SALES OFFICES SEE ADVERTISING INDEX PAGE

Member of ABC RPI

Railway Age, established in 1856, is indexed by the Business Periodicals Index, the Engineering Index Service and the Public Affairs Information Service. Name registered in U.S. Patent Office and Trade Mark Office in Canada.
Published weekly (except for four issues combining two-in-one) by the Simmons-Boardman Publishing Corporation, 508 Birch St., Bristol, Conn. 06010.
Railroad employees' subscription rate, U.S. possessions, Canada and Mexico, $6 one year, $9 two years, all others $15 for one year, payable in advance and postage paid. To railroad employees elsewhere in the western hemisphere, $10 a year; in the eastern hemisphere, $15 a year. Single copies 60¢, except special issues.
Address all subscriptions, change of address and correspondence concerning them to Subscription Dept., Railway Age, P.O. Box 961, Bristol, Conn. 06010.
Change of address should reach us three weeks in advance of next issue date. Send old address with new enclosing, if possible, your address label. Post Office will not forward copies unless you provide extra postage.

Circulation Dept.: John Rogers Director of Circulation, 30 Church St., New York, N.Y. 10007. POSTMASTER—SEND FORM 3579 TO P.O. Box 961, BRISTOL, CONN. 06010.
Printed at the Hughes Printing Co., 34 North Crystal St., East Stroudsburg, Pa. 18301. Second-class postage paid at Bristol, Conn., and at additional mailing offices.

Significance of Collins C-System to Railroad Management

Collins C-System brings new meaning to the words "expandability" and "reliability." It offers an efficiency never before achieved in a management data system.

The system's expandability stems in large measure from the organization of its operating software and its modular design. An initial configuration can be expanded incrementally and economically with additional modules as the C-System's fuller capabilities are required. Additional Collins processors can be added easily to a data center—or more data centers can be added easily to a data network. A user's existing processors can be incorporated into the C-System.

Reliability of the C-System stems from design philosophies which have distinguished Collins for many years in meeting the exacting requirements of the railroad, aviation and space industries. Parallel processors provide the basis for the continuous system availability needed in a 24-hour on-line operation. Simple system diagnostics minimize service outage.

The C-System employs modular software incorporating a highly automated operating system which allocates hardware as required to meet the work load of the full system—thus exploiting the system's full potential.

The C-System is capable of covering every aspect of a railroad's diverse and far-flung operations. The system can be used not only for payroll, billing, inventory, and accounting, but also to provide reports in such areas as automatic car identification and classification, demurrage, and equipment maintenance – as well as message switching for microwave, landline and VHF radio interfaces. The combined communication/data processing nature of the C-System—compared to the segmented character of other systems—gives railroad management more meaningful and more timely information. This helps to increase operating efficiency and reduce costs.

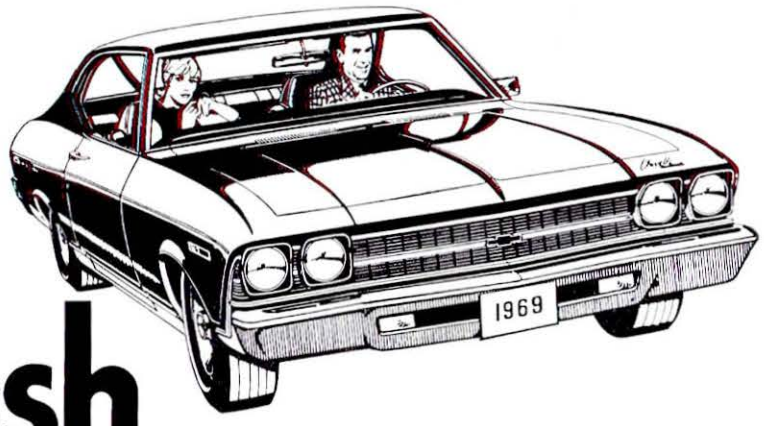
Also, a railroad can take advantage of C-System benefits in phases. There is no need to implement the entire concept overnight.

For more complete information on the C-System, write to Collins Radio Company, Dept. 300, Dallas, Texas 75207.

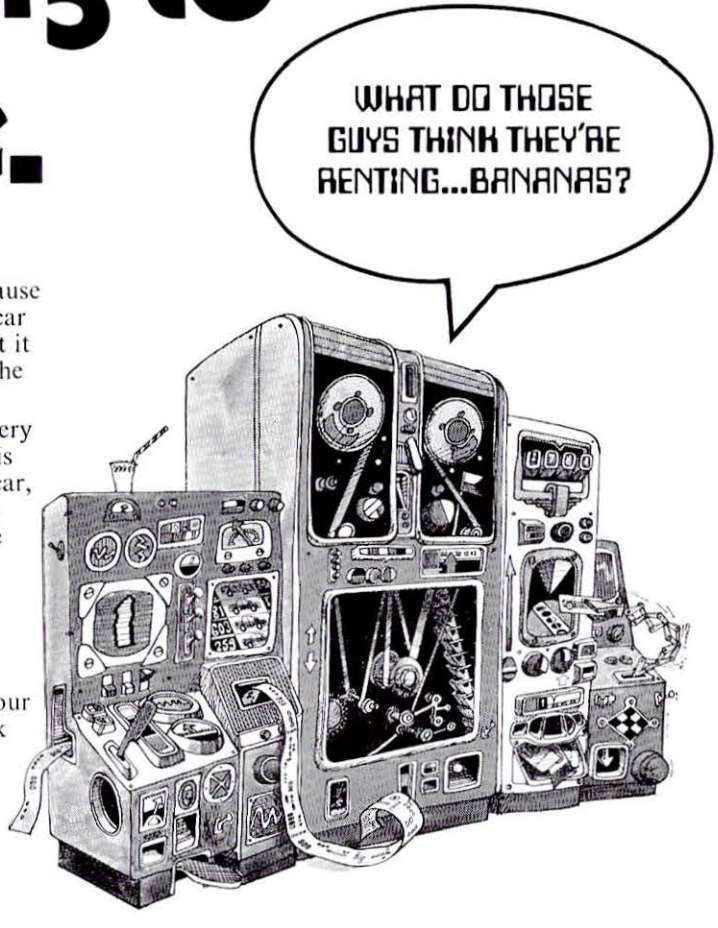
COLLINS

COMMUNICATION / COMPUTATION / CONTROL

Circle 10 on coupon page 37



Reserve a nice fresh GM car from National and know it's going to be there.



National features GM cars. They're fresh, because we generally trade 'em every 6 months. But a car isn't any good to you if it isn't where you want it when you want it. That's why we hired Max, the million dollar computer.

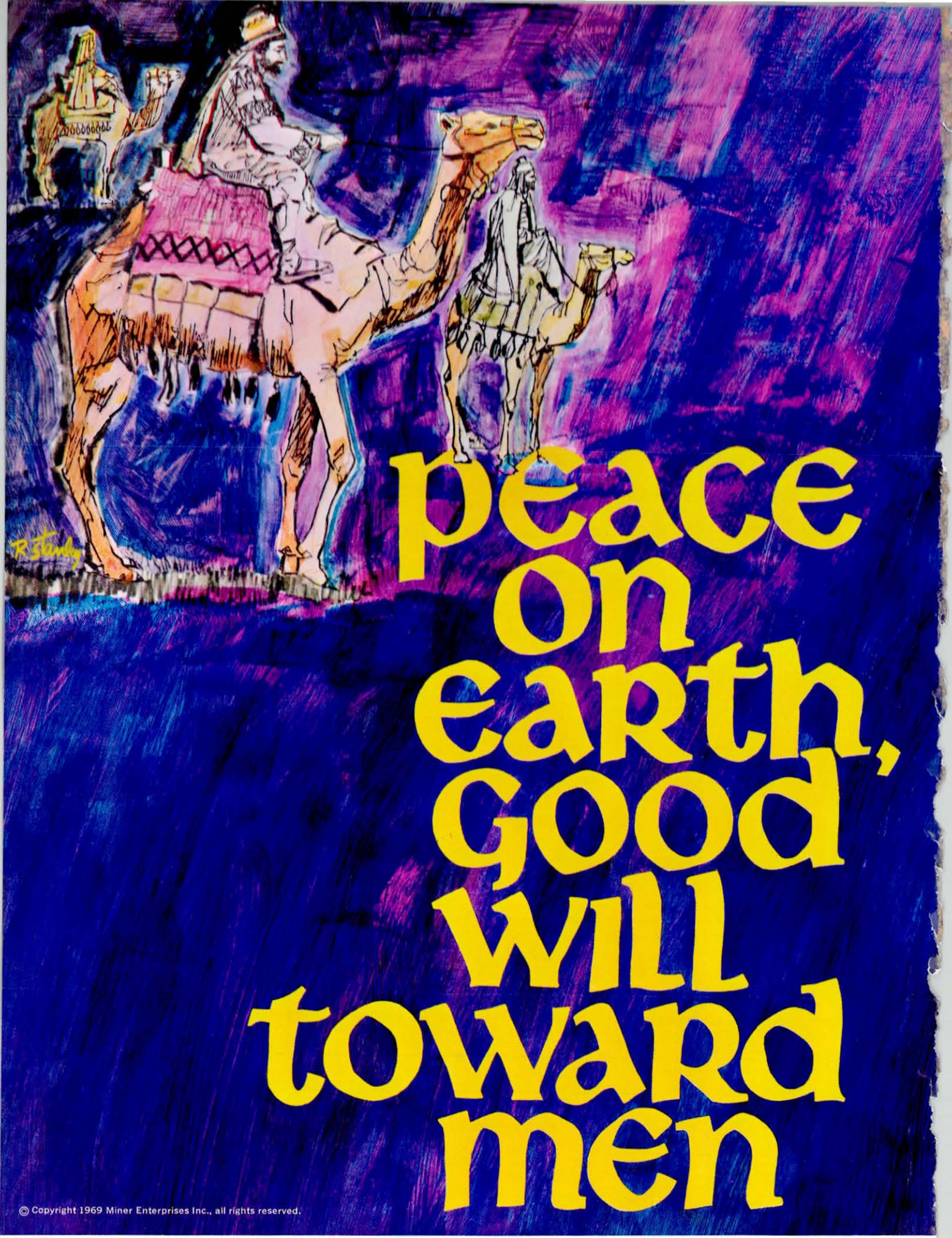
Max knows where every one of our cars is. Every minute. Call us anytime, from anywhere, at this toll-free number—800-328-4567. Ask us for a car, and we'll ask Max what's available. Thanks to him, we *know* instantly. The best our big name competitors can do is guess. That's why only National can guarantee reservations.

Of course, we still toss in the free S&H Green Stamps at all our 1800 locations. Our trusting nature permits us to accept any recognized credit card. Add all that to our GM cars and our plot to make the customer No. 1, and we think you'll like renting from us.

NATIONAL CAR RENTAL

We make the customer No. 1.

© Nat-Car-Rent-Co 1969
In Canada and throughout the world it's TILDENinterNATIONAL



© Copyright 1969 Miner Enterprises Inc., all rights reserved.

W. H. MINER DIVISION | MINER ENTERPRISES INC

SHORT AND SIGNIFICANT

Justice Dept. acts against IC-GM&O merger

The Justice Department has told ICC that the merger petition of Illinois Central and Gulf, Mobile & Ohio should be denied because, Justice says, such a union would ruin competition in the Mississippi Valley area. The Justice Department adds: (1) the railroads compete "vigorously" against each other; (2) the savings and efficiencies the railroads say merger would bring are "of relatively small size and scope compared with the efficiencies and service improvements achieved by the companies as independent and competing entities"; (3) the financial condition and prospects of the two carriers are good enough to support their separate operation; and (4) previous mergers offer no precedent for this one.

Rail relief survives Senate test

Five-year tax write-offs for railroad equipment are still a part of the Senate version of the tax-reform bill—but for a while last week, that portion of the bill which would aid railroads was in jeopardy. On Dec. 9, the Senate rejected, by a vote of 92 to 3, an amendment offered by Senators Albert Gore (D.-Tenn.) and John J. Williams (R.-Del.), which would have deprived the railroads—as well as manufacturers of anti-pollution equipment and builders of slum-clearance housing—of fast amortization.

PC connects its lines at Jersey City

Penn Central has made a 3200-ft connection between the former Pennsylvania and New York Central lines in Jersey City, N.J. As a result, through freight operations are now possible along PC's lines from Washington, D.C. to Albany, N.Y. Robert G. Flannery, vice president-operations, noted that eight through trains would use the connection.

First contract awarded for D.C. subway

Ground was broken for the Washington, D.C. Metro last week and the Washington Metropolitan Area Transit Authority announced the awarding of the first construction contract, worth $33.4 million. Work will start by Jan. 15, WMATA says. The first contract went to Gordon H. Ball, Inc., Danville, Calif., J. F. Shea Co., Oakland, Calif., and Norair Engineering Corp., Washington, D.C. The Ball and Shea firms are the main contractors for San Francisco's BART system. Substituting for President Nixon at the groundbreaking, Transportation Secretary John A. Volpe said the Metro system will bring new life to Washington. "This transit system offers a proud and significant hope for altering the course of the forces of urban decay."

Southern to consolidate four roads

As part of a program to streamline corporate organization, directors of the Southern have approved the consolidation of four roads owned or controlled by the company into one subsidiary. The new wholly-owned corporation would be called Central of Georgia Railroad—after the largest of the four subsidiaries. The other three are the Wrightsville & Tennille, Georgia & Florida, and Savannah & Atlanta. CofG owns all the preferred stock of the W&T and 52.5% of its common. G&F is jointly owned by three Southern subsidiaries. S&A's shares are owned by Empire Land Co., a CofG subsidiary.

Suspension study completed for FRA

A computer has been utilized by Westinghouse Electric to develop a hydraulic suspension in a study sponsored by the Federal Railroad Administration. Engineers at Westinghouse Research Laboratories say their "active suspension" could improve ride by 40% to 600% over that of cars with conventional springs and snubbing arrangements. The computer has been used to plot the response of the car with the new suspension; it is claimed to be equivalent to increasing the weight on the rail by a factor of four. "The most important feature of the active suspension," says one of the designers, "is that it would use power to counteract the effects of rail imperfections, instead of passively reacting to them."

MONDAY MORNING REPORT

WHAT ABOUT THE SHOP SETTLEMENT?

Negotiators on both sides of the bargaining table are taking a close look at terms of the shopcraft wage settlement—and making their own private judgments as to the broad, 1970 impact of that settlement. Details were not released when the shopcraft agreement was reached. But, as usual, secret-keeping proved impossible. And so the speculation soon began, on the implications of a 7% three-step wage-increase pattern for next year.

A BIT OF A SURPRISE—BUT ONLY A BIT . . .

With all the inflation-curbing activity under way in Washington, there was some initial surprise at the size of the package. But it was rather mildly-expressed surprise. After all, as one Washington correspondent pointed out, the settlement was worked out with the help and the "implicit blessing" of the Administration.

AND, THUS FAR, LITTLE COMMENT FROM ELSEWHERE IN LABOR

Next in line for speculation was the reaction of the rest of rail labor—and there has been precious little reaction. Most unions have had their 1970 demands on file for some time—including the United Transportation Union, the Brotherhood of Railway and Airline Clerks and the Brotherhood of Maintenance of Way Employes. Each of these organizations wants an agreement stretching beyond 1970. And each wants substantially more in '70, on a percentage basis, than the shopcraft employees will get.

RULES AND MONEY: A TREND TOWARD TRADE-OFFS?

Finally, there is a major question to be raised as to the practical significance of the work-rule changes which were negotiated as a part of the shopcraft agreement. It's almost a part of the litany of bargaining—that there must be trade-offs of money for rules, and that the industry can afford higher wage costs only as it is able to ease rules restrictions and gain flexibility in use of manpower. The shopcraft settlement appears to recognize this principle. If in fact the railroads and these unions have taken even a small step forward in this critical area, then all the travail of getting the settlement will have been worth it. And if the railroads and the shopcrafts can take that step, others also can. There is, for instance, the whole matter of train-crew make up—in the context of changing rail operations to meet changing market demands. There are other situations involving non-ops in which greater manpower flexibility is desirable. And there is, hopefully, a growing feeling in rail labor as well as in management that trade-offs can be made.

RAILWAY AGE
THE TRANSPORTATION WEEKLY
December 15, 1969

WEEK AT A GLANCE

Penn Central mounts attack on car inefficiency

Penn Central last week announced the creation of a system-wide organization to direct assignment of empty freight cars "to match the needs of shippers and improve efficiency, car utilization and service." Robert G. Flannery, vice president-operation, said 160 employees have been assigned to provide around-the-clock daily supervision of freight-car use. This special force is under the supervision of Robert C. Marquis, director-freight car utilization, at system headquarters in Philadelphia, at nine regional headquarters, and at 18 key division points.

Said Flannery: "This operation is programmed to keep empty cars moving to industrial plants, coal mines and factory sidings to meet current needs of shippers. It is also designed to keep cars in regularly assigned service, such as hauling auto parts and finished autos, appliances, and coal in unit trains."

To assist the organization, Flannery said, a series of computer generated reports have been developed and implemented for equipment control on a system-wide basis. Additional information systems now in the planning stage will enhance car control, he added.

The nine regional headquarters involved are New York City, New Haven, Syracuse, Philadelphia, Pittsburgh, Cleveland, Detroit, Chicago, and Indianapolis.

250-mph LIM rail car unveiled in L.A.

A two-man research rail car, claimed to be capable of traveling at 250 mph, was unveiled Dec. 9 in Los Angeles. The low-slung, aerodynamically-shaped vehicle was built under a $3.2-million DOT contract by the Garrett Corp., an aerospace firm. The craft was constructed to test out a linear induction motor (LIM) system. It has two trucks of four wheels each that ride on conventional rails. A thin, central rail provides the means for linear induction. James M. Beggs, Under Secretary of Transportation, said that although the LIM could power conventional wheeled trains, its biggest advantage could be in tracked air-cushion vehicles (TACV's). The DOT hopes to sign a contract for a prototype TACV next year to test the air-cushion concept with the LIM principle.

SP, Santa Fe plan major improvement programs for 1970

Both Southern Pacific and Santa Fe are ringing out the old year with impressive capital improvement programs for the new year.

Southern Pacific is planning a 1970 new equipment program which will rank with the biggest in the industry. With final plans not yet worked out, SP has already placed orders for 90 diesel-electric units, 4,171 new freight cars and 75 cabooses. The total cost: About $102 million, divided $23 million for power and $79 million for freight-train equipment.

For all of 1969, SP is estimating its total capital-improvement program at more than $260 million, including more than $200 million for railroad improvements alone. By year's end, the road will have added 4,962 new freight cars to its fleet, along with 250 locomotive units. Both the railroad program and the company-wide program hit new record highs, SP says, "by a substantial margin."

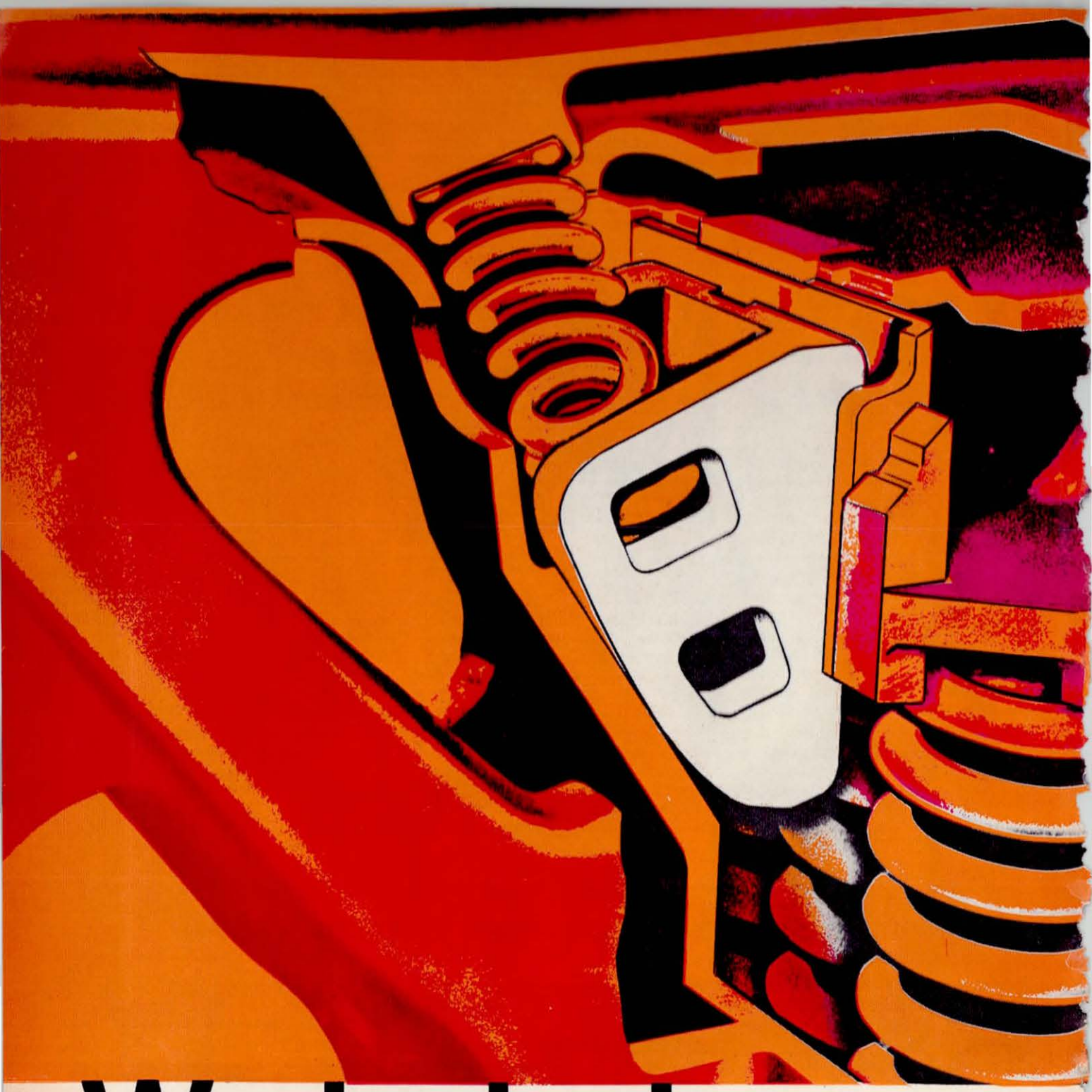
Along with the equipment program for '70, SP is planning substantial expenditures for plant improvement.

In 1969, the road completed major extensions to its microwave network, including installations between Houston and Dallas, along the line serving Fort Worth and along its Oregon and Tucson Division branch lines. By spring of next year, the system will be further expanded: Dallas-East St. Louis, Ill., 897 miles with 36 repeater stations; Mount Vaca-Willits, Calif., on the Northwestern Pacific, 110 miles with one repeater station; and Kayenta-Seligman, Ariz., to serve the Black Mesa Pipeline subsidiary, 263 miles with eight repeater stations.

With completion of these three extensions, SP will be operating 6,053 miles of microwave, with 215 stations.

Unlike SP, Santa Fe—at this point—looks like it will be acquiring more locomotives and fewer freight cars in '70. Santa Fe acquired 90 new diesels in 1969; it's going for 120 in 1970. Freight car orders, however, may be down sharply. This year's deliveries totaled about 2,750 units; next year's program is now pegged at 980 cars.

In the fixed-plant area, Santa Fe will have a 355-mile welded rail program in '70; it will complete construction of its new eastbound classification yard at Argentine, Kans.; it will improve TOFC/COFC facilities at Dallas and Chicago; it will complete construction of one-spot car-repair facilities at Kansas City, Kan., and San Bernardino, Calif.; and it will expand diesel facilities at Argentine.

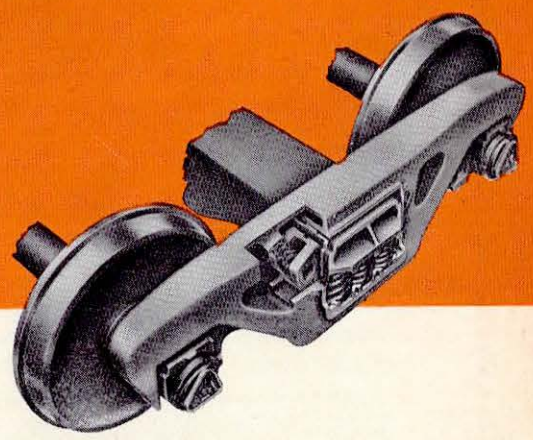


Wedgelock®

National Super C-1 Trucks

the great performance breakthrough for heavy duty freight trucks

SUPER C-1 WEDGELOCK



National Super C-1 Truck (A.A.R. Approved) Cutaway section shows exclusive Wedgelock details. Note gibless bolster design provides interlock between wear-plated bolster wedge shoulder and fail-safe hardened wedge. Other features: Smoother ride through selective snubbing, lateral contact surfaces more than 25% larger than any competitive truck . . . simple replacement of L-shaped wear plate without weld build-up if reclamation ever becomes necessary.

Yet another example of National's freight car truck leadership—the National Super C-1 Truck with exclusive Wedgelock design. Though regarded as revolutionary in comparison with ordinary trucks, Wedgelock is an evolutionary development of National's famous family of C-1 Trucks.

Wedgelock design is particularly ideal for heavy duty, high mileage cars. It incorporates a fail-safe wedge interlock design . . . provides increased lateral . . . controls skewing to limit out-of-square conditions . . . can alleviate roll conditions without "auxiliary" devices . . . effectively limits bolster rotation in sudden speed changes.

These exclusive advantages of Super C-1 Wedgelock Trucks add up to a safer truck with reduced wheel flange wear rate . . . quick inspection through visual wear indicator . . . less maintenance and lower eventual reclamation costs. Why fight progress? Wedgelock is still another in a long line of successful firsts in truck design by National.

NATIONAL CASTINGS DIVISION
Midland-Ross Corporation

GENERAL OFFICES • Sharon, Pennsylvania
SALES OFFICES • Chicago • Philadelphia • Richmond
St. Louis • San Francisco • Cleveland

Circle 6 on coupon page 37

A-3297

GUS WELTY

LINES ON LABOR

IF THERE IS A STRIKE on the fireman-manning issue, the whole railroad industry—management and labor alike—may want to go off somewhere for a session with the head-shrinkers. If ever there were a dispute that should be settled in calm reasonableness, this is it.

TALKS WILL BEGIN next month, in this most-troublesome of company/union arguments. A government-selected mediator will be on hand to help. Hopefully, he will be the catalyst in producing a peaceful reaction.

THE FIREMAN DISPUTE, in its present form, is a decade old. It began with the railroads' effort to get firemen *off* freight and yard locomotives. It continues with the United Transportation Union's effort to get firemen back *on* freight and yard locomotives. It is a dispute which the parties themselves once *almost* settled. It is a dispute which ought to be resolved once and for all, so that the industry and UTU can go on to more meaningful things.

FIREBRANDS IN UTU may say that their union should have acted, should have raised the threat of a walkout earlier this month when the timetable of bargaining said "self-help" was legal and possible. To its credit, UTU did not start hollering "Hit the bricks"—despite an overwhelming vote by which UTU's firemen-representatives told the leadership to fight-on for the fireman-on demands.

CREDIT ALSO HAS TO GO to Labor Secretary George P. Shultz. This quiet non-interventionist from the University of Chicago has already made quite a mark on the rail management/labor scene in the shopcraft wage case. In that dispute, he sent his aides into a situation that could easily have brought a repeat of the action of two years ago—a strike and swift Congressional action. Mr. Shultz and Assistant Secretary Bill Usery earned all sorts of hero-badges in the shopcraft settlement. For an encore, the Secretary takes a hand in the fireman-manning case. You've got to admire his courage.

IF YOU LOOK AT the recent history of the fireman dispute, you find a paradox: It's a dispute which could easily go to a crisis point without either side's wanting that to happen. It's a dispute which did not lend itself to peaceful settlement 10 years ago, or even five. It's a dispute which *should* be disposed of without great difficulty, now. Once, the parties did seem to have a framework for settlement under construction. Hopefully, they can rebuild it.

Western senators launch new drive on car shortages

As the harvest piles up west of the Mississippi River, alarm grows on Capitol Hill over what Western senators see as a crisis in freight-car supply. This season's campaign against car shortage so far contains at least three elements, all of which surfaced last week: (1) a request by senators for the Justice Department to join in petitioning the Supreme Court to re-consider its quick approval of ICC's time-mileage per-diem plan (RA, Nov. 17, p. 12); (2) reactivation of the Senate Commerce Committee's freight car shortage subcommittee; and (3) introduction of a bill that would give ICC emergency powers to impose extra charges in times of severe car shortages, double the existing penalties for violation of per-diem agreements, and establish a new per-diem plan based on time only.

Warren G. Magnuson (D.-Wash.), Commerce Committee chairman, led the move to get Justice Department support. Magnuson said the Supreme Court should have heard arguments on the ICC plan, and that future arguments should consider per-diem as it relates to car supply, not per-diem in itself. "The decision of the Court . . . would enable the Congress to proceed fruitfully and with greater relevance," Magnuson said. His request was endorsed by 14 other senators, most of them from Western states.

Magnuson also called for the freight car shortage subcommittee to come alive "for the twelfth time." It is composed of Senators Hartke of Indiana, chairman, Cannon of Nevada, Moss of Utah, Pearson of Kansas and Prouty of Vermont. The subcommittee's last action came in 1966 when it gave ICC power to set incentive per-diem rates, which ICC has not since done.

The Nov. 11 Supreme Court decision for which Magnuson is seeking review concerns an ICC plan for computing both time and mileage in setting per-diem. Under the ICC plan, mileage charges range from 1.47 cents to 4.60 cents (not dollars as reported previously), and time charges range from 63 cents to $10.22. The ICC method multiplies the mileage rate by the number of miles a car moves (this step was omitted from the previous RA story). Then it adds that figure to the day rate for the total time-mileage per-diem rental charge. Magnuson and other senators have attacked the ICC as a hindrance rather than an aid to a more fluid supply of freight cars.

THE STRONG ONE

GSI One-Piece Underframe End

Most failures in fabricated underframes occur in the bolster center sill area.

GSI cast steel underframe ends eliminate this problem.

The one-piece steel casting gives you maximum strength in the critical area. And it eliminates the basic cause of failure . . . the stress concentrations inherent in fabricated designs.

A STRONG POINT... for new cars and for old cars you rebuild.

GENERAL STEEL INDUSTRIES INC.

CASTINGS DIVISION | GSI

Granite City, Ill. • Philadelphia, Pa. • San Francisco, Calif.

Now. There's a Super Diesel Oil that cuts it with this kind of engine.

It's AMOCO® Super Diesel Railway Oil. And it's ready to serve you right now.

We've done your testing for you. More than 7,000 unit months of heavy-duty freight service and over a year of closely-monitored testing with all types of newest power.

AMOCO Super Diesel Oil is designed for use in the new diesels with increased horsepower and full flow filtration. Like this high horsepower Illinois Central Diesel Freight Engine.

A highly-dispersant oil, AMOCO Super Diesel Oil helps provide longer filter life and, in turn, cleaner running engines.

AMOCO Super Diesel Oil also offers other advantages:

High alkalinity for low wear.

Stable oxidaton for longer oil life.

One of the lowest ash, high-performance, fully-approved commercial railroad diesel lubricating oils.

AMOCO Super Diesel Oil. It's ready when you are.

"You expect more from American and you get it."

•Trademark

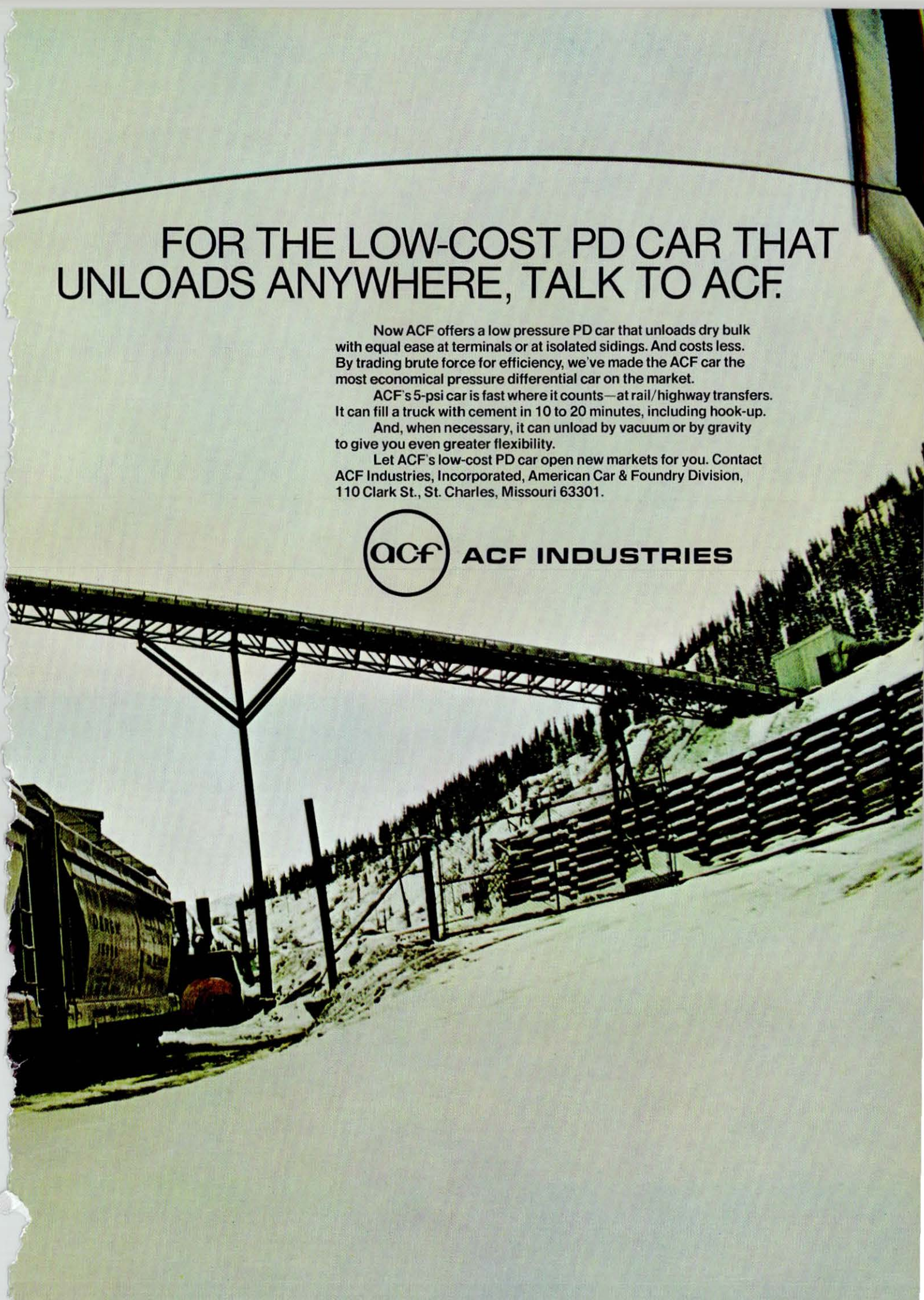
Start using American Ingenuity.

AMERICAN

American Oil Company, Chicago, Illinois 60680

© 1969, The American Oil Company, Chicago, Illinois

MEMBER RPI RAILWAY PROGRESS INSTITUTE



FOR THE LOW-COST PD CAR THAT UNLOADS ANYWHERE, TALK TO ACF.

Now ACF offers a low pressure PD car that unloads dry bulk with equal ease at terminals or at isolated sidings. And costs less. By trading brute force for efficiency, we've made the ACF car the most economical pressure differential car on the market.

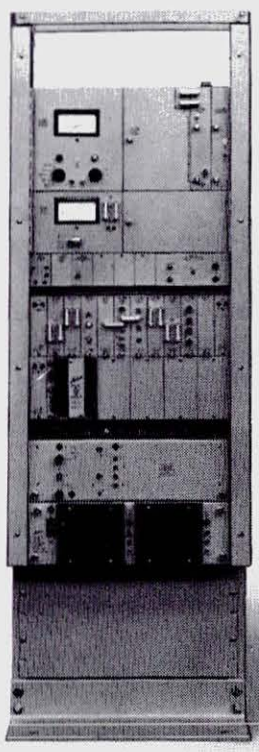
ACF's 5-psi car is fast where it counts—at rail/highway transfers. It can fill a truck with cement in 10 to 20 minutes, including hook-up.

And, when necessary, it can unload by vacuum or by gravity to give you even greater flexibility.

Let ACF's low-cost PD car open new markets for you. Contact ACF Industries, Incorporated, American Car & Foundry Division, 110 Clark St., St. Charles, Missouri 63301.

acf ACF INDUSTRIES

"Just tell'em if performing microwave



When we asked one of our engineers what we could say about our 78B microwave system, he told it like it is.

But we'll tell you a little more.

First of all, we made the 6-GHz 78B a carefully considered blend of state-of-the-art advances and proven techniques. To give you the best possible performance. Day in and day out. For a few channels or 420 channels.

When it comes to new technology, the 78B has its share. Like a receiver that's all solid-state for reliability.

they can find a better system, buy it."

And waveguide filters that are all but independent of temperature for better stability.

To get the best transmitter performance and stability, we went with an improved temperature-compensated klystron. (There still isn't a proven substitute on the market that out-performs it.)

And we didn't ignore an important fact of life: maintenance. When our quick-change transmitter klystron needs attention, all you replace is the electron gun. The cavity stays tuned. Instead of several hours, you're back in operation in about 15 minutes.

Then there's the convenient built-in meters and coordinated test points. They make the 78B easy to line up, test, and troubleshoot.

All things considered, the way our engineer told it makes a lot of sense.

And so does the 78B.

Lenkurt Electric Co., Inc., San Carlos, California.

LENKURT ELECTRIC
GENERAL TELEPHONE & ELECTRONICS

Microwave Systems from Lenkurt

"Many businesses are contributing generously to higher education. Have you looked recently to see if you're giving enough?"
Roger M. Blough*

In addressing business leaders, Roger Blough backed up this question with the alarming estimate of rising costs for higher education. "By the mid-seventies, annual expenditures will reach $30 billion, about double the 1965 figure."

It's vitally important that every business evaluate investment in higher education—and do so in light of rising costs. Corporate contributions that are geared to yesterday's expenditures aren't keeping pace with changing needs. If your company has not yet started an aid-to-education program, it's time to get involved.

Business needs educated people to produce money. Colleges need money to produce educated people. With tuitions covering only about ⅓ of the soaring costs, colleges and universities must have more help, now.

Write for: "How to Aid Education." It's a booklet for management—of particular interest, if your company has not yet established an aid-to-education program. Address: Council for Financial Aid to Education, 6 East 45th Street, New York, N.Y. 10017.

*Former Chairman, United States Steel Corporation

Give to the college of your choice.

ADVERTISING COUNCIL® COUNCIL FOR FINANCIAL AID TO EDUCATION

advertising contributed for the public good.

they can find a better system, buy it."

And waveguide filters that are all but independent of temperature for better stability.

To get the best transmitter performance and stability, we went with an improved temperature-compensated klystron. (There still isn't a proven substitute on the market that out-performs it.)

And we didn't ignore an important fact of life: maintenance. When our quick-change transmitter klystron needs attention, all you replace is the electron gun. The cavity stays tuned. Instead of several hours, you're back in operation in about 15 minutes.

Then there's the convenient built-in meters and coordinated test points. They make the 78B easy to line up, test, and troubleshoot.

All things considered, the way our engineer told it makes a lot of sense.

And so does the 78B.

Lenkurt Electric Co., Inc., San Carlos, California.

LENKURT ELECTRIC
GENERAL TELEPHONE & ELECTRONICS

Microwave Systems from Lenkurt

There will be a special

reader bonus

in next week's issue of Railway Age. The industry's reception of

"Tomorrow's Railroads"

has been so tremendous...

This is certainly well presented, and you have hit a vital problem, the solution of which could well affect the continuing growth and development of our great industry. *—W. Thomas Rice, President*
Seaboard Coast Line Railroad Co.

Your first article on "Tomorrow's Railroads" was certainly stimulating in posing the problems facing the industry for the future.
—W. A. Frick, Group President
Abex Corporation

I have found the series of articles, "Tomorrow's Railroads," in the Railway Age extremely useful.
—Sir James Easton
The Detroit Edison Company

Your observations should be made required reading for all those who make laws pertaining to railroads or are engaged in railroad regulation, and also officers of railway labor organizations.
—John W. Barriger, President
Missouri-Kansas-Texas Railroad

I want to compliment you on a very wonderful article in which I feel you have laid the groundwork for the new railroads.
—Lester A. Crone, President
Buffalo Brake Beam Company

I called you this morning to compliment you. I think the series can do much to help the railroad industry do a little soul-searching. *—E. Preston Calvert*
Vice President Public Relations
Pullman-Standard

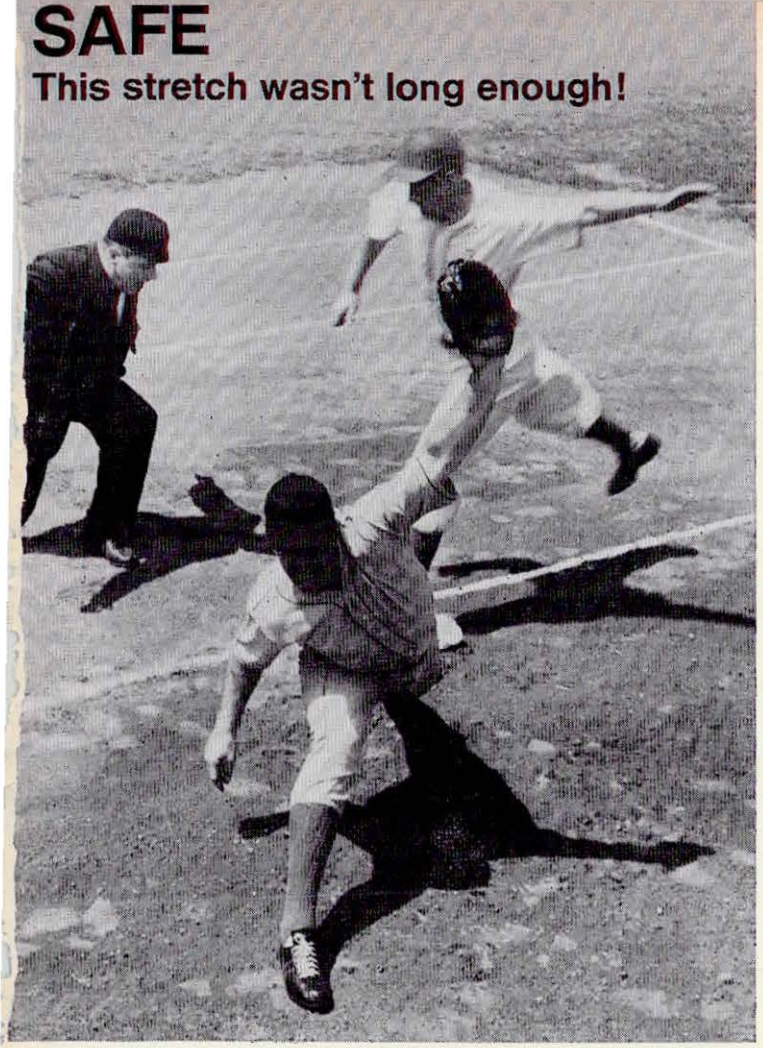
I congratulate you. It is difficult to imagine a more useful series of articles at this time than one which probes deeply the future. *—W. Arthur Grotz, President*
Western Maryland Railway Company

...that with the publication of the twelfth and last chapter of "Tomorrow's Railroads" in the Dec. 22/29 Freight Traffic issue, there will be a reduced-size

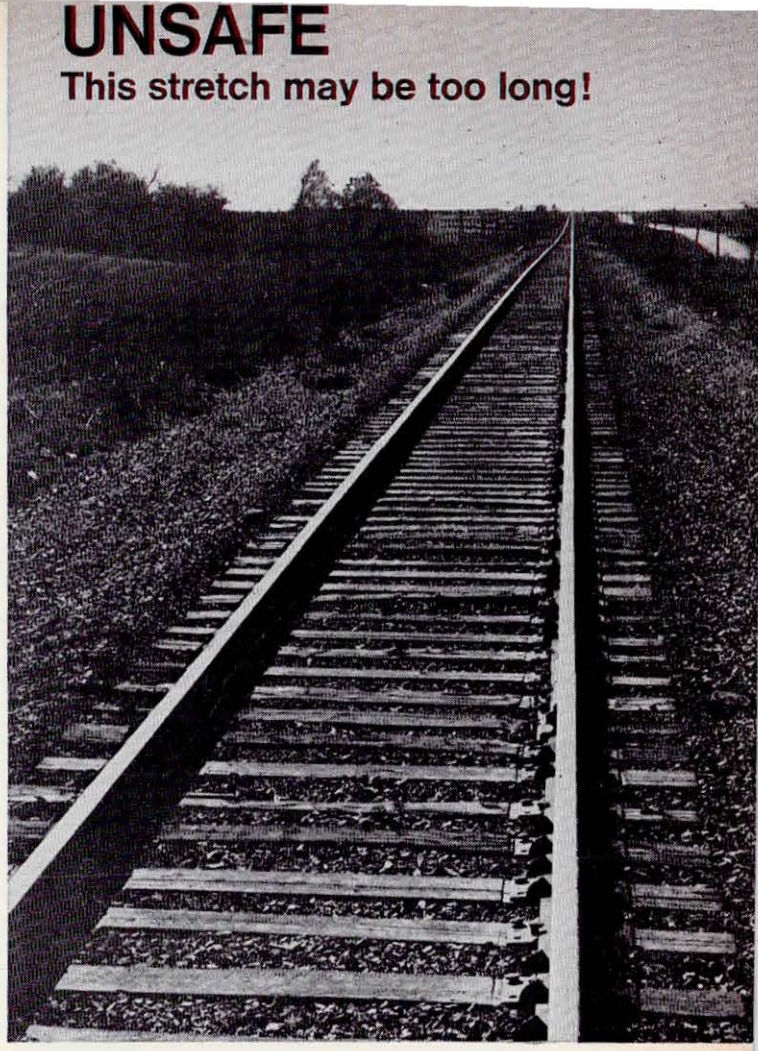
reprint

of the first eleven chapters—word for word, chart for chart. We think you will want to keep it for a reference.—*The Editors*

SAFE
This stretch wasn't long enough!



UNSAFE
This stretch may be too long!



Our new rail-mounted SERVOSAFE® Hot Box Detective™ prevents axle burn-offs and derailments.

It's a good thing to have on your railroad.

But, for safety's sake, don't stretch a good thing!

Do you have long stretches of track without SERVOSAFE protection?

Recent studies have revealed that such factors as heavier car loadings, faster train speeds and greater accelerations have combined to increase the incidence of overheated journal boxes. This has prompted many railroads to review their spacing of hot box detectors. Up to now, the average spacing has been 25 to 30 miles apart along line-of-road. Under today's conditions, however, a hot box can develop in less than 25 miles and cause a derailment *between* detectors.

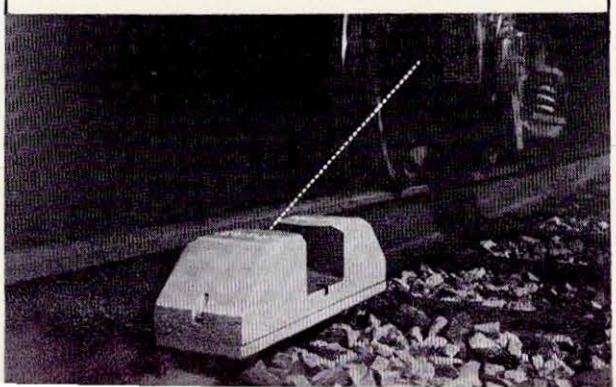
One solution becomes self-evident: closer spacing of hot box detectors for more protection. A SERVOSAFE system will not prevent a hot box—but it will detect, locate and warn of a hot box before the condition worsens into a dangerous, costly axle burn-off and derailment!

Will it cost you more to get this additional SERVOSAFE protection? Not really. Here are some reasons why not:

Our new Model 8808 SERVOSAFE system features patented rail-mounted scanners and solid state electronic data processing for the fastest, most precise detection of hot boxes. It allows remedial action to be taken *before* a failure occurs, and helps cut down the high costs of major salvage or replacement. The cost of installation and maintenance is appreciably reduced by eliminating the need for concrete foundations, special ties and expensive roadbed preparation. The rail-mounted scanner can be easily removed for maintenance or relocation. Finally, compare the cost of a SERVOSAFE with the $200,000 involved in just one derailment that could be prevented.

That's why most prudent, progressive railroad managements agree when we say, "More SERVOSAFE protection isn't costly—*lack of it is!*"

Model 8808 SERVOSAFE Hot Box Detective Rail-mounted scanner "looks" at journal bearing behind truck frame with a vertical, close-in target scan for greater uniformity and accuracy. Scanner is securely clamped to the rail (no drilling required). Accuracy is not affected by rail pumping, running or lateral movement.



servo

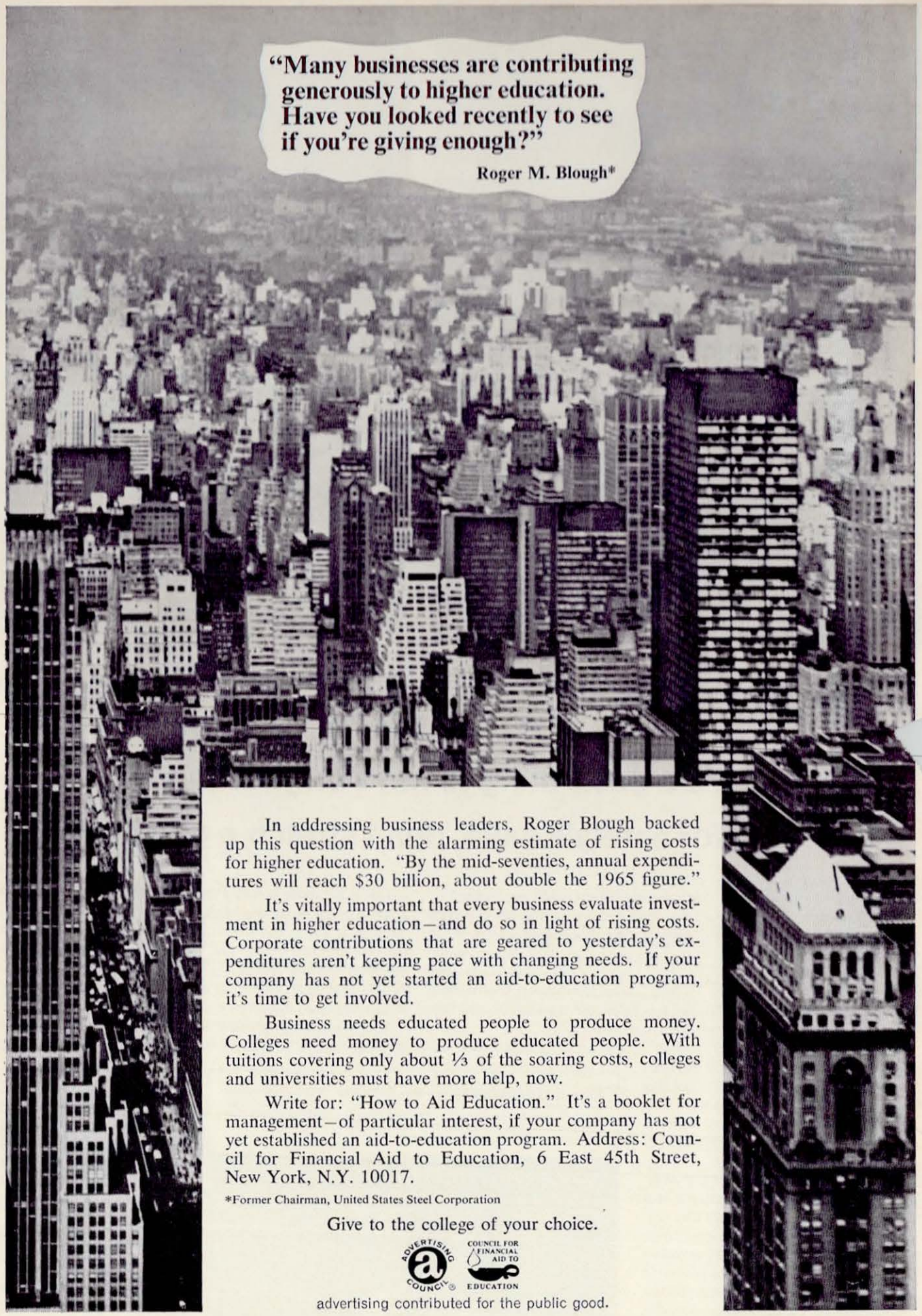
SERVO CORPORATION OF AMERICA
Hicksville, N.Y. 11802 • Tel. 516-938-9700
European Office: Lausanne, Switzerland

Serving Safety Through Science

Since 1957, more than 1,000 SERVOSAFE Hot Box Detective systems have been put into service on 54 of the world's major railroads, and have compiled an unequaled record of safety improvement and cost reduction.

Circle 11 on coupon page 37

MEMBER RPI


"Many businesses are contributing generously to higher education. Have you looked recently to see if you're giving enough?"
Roger M. Blough*

In addressing business leaders, Roger Blough backed up this question with the alarming estimate of rising costs for higher education. "By the mid-seventies, annual expenditures will reach $30 billion, about double the 1965 figure."

It's vitally important that every business evaluate investment in higher education—and do so in light of rising costs. Corporate contributions that are geared to yesterday's expenditures aren't keeping pace with changing needs. If your company has not yet started an aid-to-education program, it's time to get involved.

Business needs educated people to produce money. Colleges need money to produce educated people. With tuitions covering only about ⅓ of the soaring costs, colleges and universities must have more help, now.

Write for: "How to Aid Education." It's a booklet for management—of particular interest, if your company has not yet established an aid-to-education program. Address: Council for Financial Aid to Education, 6 East 45th Street, New York, N.Y. 10017.

*Former Chairman, United States Steel Corporation

Give to the college of your choice.

ADVERTISING COUNCIL® COUNCIL FOR FINANCIAL AID TO EDUCATION

advertising contributed for the public good.

The strange case of NP's "Mainstreeter" ... and the

"James Whitcomb Riley," the "California Zephyr," the "Tulsan" and other trains that the Interstate Commerce Commission refuses to let die.

By **GUS WELTY,** Senior Editor

The Interstate Commerce Commission came along too late to save the stagecoach. But it's giving its all in behalf of the passenger train—or so it seems, in the wake of several recent turndowns for train-offs.

Penn Central's lightly-patronized "James Whitcomb Riley" is still making its daily Chicago-Cincinnati run—by ICC order and despite PC's projection of a $285,000 loss for 1969.

The "California Zephyr" is still in business, courtesy of an ICC directive to Rio Grande—despite losses suffered by all three partners on the CZ route.

Santa Fe's "Tulsan" still operates between Kansas City and Tulsa, by ICC mandate—despite presentation of a strong train-off case which shows heavy losses and a lack of public need for the trains.

There are others.

● **Now, the "Mainstreeter."** No recent train-off case, however, seems to have stirred emotions as they were stirred by the strange and curious case of the "Mainstreeter."

This one could become a landmark case. At the very least, it will be a case in which a railroad seems determined to go the limit to prove its points—which are (1) that the train should not be continued in service, and (2) that its operator, Northern Pacific, is not guilty (as charged) of service downgrading.

NP has now gone around with the Commission three times. Each time the Commission has said "Keep the train running." Other roads have had similar experiences with other trains. Sometimes, there's a plea (pro-forma or otherwise) for reconsideration. Sometimes, train-off rejection just means "Wait"—for months or for a year—and then "Try again."

● **Pros and cons.** Observers of ICC action in the passenger-train situation have somewhat mixed emotions. On one hand, the ICC has acted in the industry's interest and in the public interest in using the train-off section of the Transportation Act which Congress provided in 1958. Hundreds of trains that were operating in '58 are not operating now (and the mind boggles at the thought of the losses the industry would be suffering if all those trains *were* still running). At the same time and as the passenger-train fleet shrinks while costs keep climbing, there seems to be a squeeze developing—in which it becomes harder and harder to get a train discontinued.

(Latest available figures show that 745 trains have been discontinued under provisions of the '58 act. Twenty-six cases are still pending. In 12 cases this year involving 24 trains, the Commission has refused to permit discontinuance and the trains are operating.)

In the most recent proceeding involving NP's Mainstreeter, it almost seems as if the Commission's Division 3 seized upon every possible opportunity to make its case for keeping the train on. NP's cost figures were challenged. Its service standards were challenged. In the order initiating hearings, the Commission even asked for evidence on the feasibility of operating mixed trains over the Mainstreeter route.

● **One dissenting vote.** It should be noted that Division 3's decision came by a split vote. Commissioners Deason and Hardin said "Run the train." Commissioner Tuggle was a minority of one. He said "Take it off."

NP made its case in the time-honored way—citing such things as declining patronage and revenues, increasing losses, availability of alternate service.

NP President Louis W. Menk laid it on the line in his testimony. "The plain fact," he said, "is that people are simply not using railroad passenger service . . . The public has deserted the passenger train because it has found faster and more convenient ways to travel. Modern technology has developed, as alternative modes of transportation, automobiles and buses operating over a multi-billion-dollar network of excellent public highways . . . and the jet airplane operating from public airports over public airways. The American public has simply chosen the latest, fastest and most convenient modes of transportation in preference to rail service. This is a fact of life that all of us must realize and accept. That's progress."

Lou Menk took note of opposition to the train-off. It's understandable, he said, "that people served by the NP look on the discontinuance of the Mainstreeter as a localized problem. Unfortunately, such it not the case. The decline in rail passenger service is national and it has an important bearing on the operation of the Mainstreeter."

Few people, NP's president added, "fully realize the competitive disadvantage of the railroads in operating passenger service. In this age of time-consciousness, not many people will spend 42 hours on a train when they can fly from the Twin Cities to Seattle in approximately three hours. Few people will use the train for short trips when they can drive the family car to their destinations on their own schedules—in the same or less time than it takes by rail—and still have their cars available for side trips and errands when they arrive at their destinations, and

available for return at any time at their convenience."

● **"Losses, but . . ."** The majority on Division 3, however, looked at NP's case and wound up unsympathetic—at least in their decision. Commissioners Deason and Hardin conceded that NP "is incurring losses in the operating of the Mainstreeter, and that no foreseeable favorable change will so vastly alter the picture as to turn the loss into a profit." But, they said, "we do not feel that the losses incurred will place an undue burden on or seriously affect the welfare of the other freight and passenger traffic of the Northern Pacific."

The majority went on to cite "the strong financial condition of Northern Pacific, in part due to its land grant holdings," and "the great public need for the trains."

Finally, Commissioners Deason and Hardin offered the view that "had the Northern Pacific continued to exercise diligence toward its passenger service after Sept. 10, 1967 . . . instead of downgrading the service in anticipation of discontinuance of the Mainstreeter, it would have enjoyed revenue from its passengers more in keeping with the amount of revenue received in 1967, and would have incurred considerably less loss."

● **What is "downgrading"?** Commissioner Tuggle didn't buy the majority's argument. He said it was based "on the single word 'downgrading.'" He challenged the majority's financial analysis—and he offered a few theories of his own on the subject of "downgrading."

The dissenting commissioner found the majority's estimate of reduced losses "apparently . . . contrived by a comparison of 1967 revenues against 1968 expenses. The so-called downgrading resulted in a $1,643,000 reduction in expenses in 1968. That reduction would be even more if the majority's adjustments are applied. The fallacy in the decision is that these reductions in expenses are forbidden, because as soon as a dollar is saved the epithet of 'downgrading' is hurled."

Downgrading and economizing, Commissioner Tuggle observed, "differ in the intent behind the intent. Both result in savings, which is the initial intent. If a carrier intentionally cuts costs to suffocate a viable service, that is the reprehensible tactic of downgrading. If it cuts costs to preserve a service, that is a commendable act of economy. If we first determine the nature of the service and the effect of the carrier's act, we can find the intent behind the intent."

● **Convenience, yes. Necessity, no.** The majority seemed to put special stress on NP's handling of sleeping car service on the Mainstreeter—its moves in taking the car off the trains in September 1967, and then discontinuing through service to Chicago in mid-1969 after returning the sleeping car to service in September 1968. Commissioner Tuggle, however, looked at patronage patterns and came to the conclusion that NP is operating "five complete sets of trains in maintaining this 1,890-mile daily schedule to provide what is purely a local service. A Slumbercoach on such a train is a convenience but not a necessity."

The dissenter also rapped the majority's views on NP's over-all financial condition in relation to the burden of Mainstreeter losses. Said Commissioner Tuggle: "The burden on the carrier is undue." And he added this: "It is for situations like this that the Supreme Court ruled that only where the demands of the public convenience and necessity are large, should we attach great weight to the carrier's over-all strength . . . Here we have no overwhelming public dependence on these trains."

● **It's NP's move.** Next move in the strange case of the Mainstreeter is up to the carrier—and NP last week was scheduled to begin its quest for a reconsideration of the decision. What happens next is anybody's guess. But it's regarded as quite possible that if all else fails, NP will take its case to court—in what would apparently be the first such action to be started by a railroad under present train-off law.

Meanwhile, the Mainstreeter runs—and NP suffers losses which, by its estimate, will exceed $3.5 million this year.

● **Questions can be raised.** Meanwhile, too, industry observers are raising a number of questions, some new and some old, about the whole passenger problem. One concerns politics, and political pressures. The regulatory agencies, presumably, are set up to run with a fair degree of independence. But they get their money from Congress. And elected representatives are not unaware of the grass-roots political value of socking it to a railroad.

A second question concerns the matter of service. In one recent decision, the Commission said it lacked power to impose standards of service. In the Mainstreeter case, however, Division 3's majority seemed to be doing this by indirection—by basing its decision, in Commissioner Tuggle's words, "on the single word 'downgrading.'"

Some of the questions may be answered—or at least made moot—if and when Congress acts on subsidy for losing services which are regarded as essential.

Meanwhile, the Mainstreeter runs—and one observer's question is still unanswered: "Who needs it?"

"Mainstreeter" Clean, reliable—and nearly empty

A reporter takes a first-hand look at an "essential" train.

By **FRANK MALONE**, Washington Editor

What *is* the Mainstreeter? What kind of train can set off accusations by Commissioners and a sharp reply by a railroad president? What sort of trouble-maker may launch the first court appeal by a *railroad* in a train-off case?

● **Luxury, or what?** If you go to see the Mainstreeter, will you find a luxury streamliner or a junk pile? One or the other, it would seem, would be needed to cause such a furor. A luxury streamliner might stir railroad cries for relief from heavy costs. A junk pile would stir public cries for relief from a heavy insult. However, if you go to see the Mainstreeter, you'll find neither.

Carpets? No. Comfort? Yes. Tablecloths? No. Tables? Yes. Steaks? No. Food? Yes. Stewardess? No. Service? Yes. No, the Mainstreeter is *not* the North Coast Limited. Northern Pacific never said it was. A lot of people seem to have forgotten that.

The Mainstreeter does differ from its elegant cousin in refinements. But it matches the North Coast in the thing those refinements are added to—clean, reliable, pleasant rail transportation. The Mainstreeter is a long-distance runner without the ermine track suit.

● **Climb aboard.** How do you find this out? You get on the Mainstreeter. You ride. You see.

You board the Mainstreeter at St. Paul, Minn., on Dec. 1, for example. Around 7:15 a.m., at the bottom of the stairs of Union Depot's Track 14, you find two 1,500-hp diesel locomotives ready to move out with a six-car consist. The Mainstreeter has two baggage cars, two coaches, an economy diner, and for this trip a standard sleeping car instead of the usual Slumbercoach.

The cars look like as though they belong together, not like they've just been thrown together from whatever—NP equipment or not—happened to

DESERTED STATION PLATFORM is symbolic of attitude of most Twin Cities-Seattle travellers toward the Mainstreeter.

be lying around. Everything except one stainless steel coach displays the two-tone NP green. Everything—nothing excepted—looks as though it was up early that morning for a shower.

The equipment you see is one of five sets that NP maintains for the Mainstreeter's 1,890-mile run from the Twin Cities to Seattle. Over a recent five-month period, NP says it spent a monthly average of $100,000 for Mainstreeter equipment repairs.

● **Popular spot.** Once aboard the train, you quickly find out where the action is. The train's gathering-place is a Mainstreeter exclusive, the economy buffet car. It's diner, lounge, and observation car in one unit. Just over half the car is filled by tables that extend from both sides. They seat two or four persons. In addition to a place to eat, the tables offer a spot for a card game. They're the one alternative to a coach seat.

The rest of the car houses a kitchen and a counter. The counter holds a rack for pastry and fruit—and a cash register. The menu board tells the story. The most you can spend in one place is 95 cents for franks and beans.

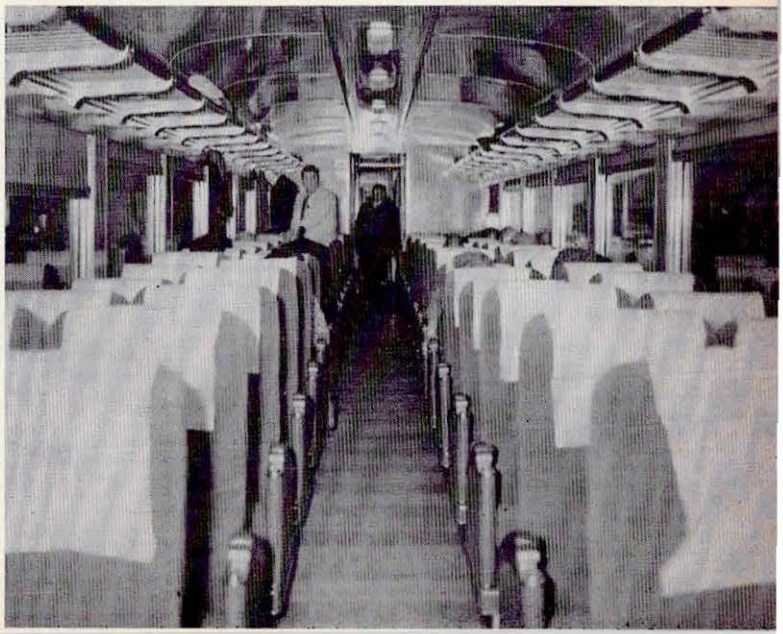
No carpeting, drapes, mirrors, murals, tablecloths. No silverware. You place an order for eggs and sausage, franks and beans, a hamburger or cheeseburger, or a fish sandwich. Or you just pick up beer, a mixed drink, coffee, milk, a sweet roll, an apple or an orange. You pay at the end of the counter. You pick up plastic utensils.

OUT OF MINNEAPOLIS . . .

One of the two Mainstreeter coaches is more than half filled as train begins its run to Seattle. Consist also includes two baggage cars, diner, sleeper.

. . . OUT OF BISMARCK

Pulling out of North Dakota's capital city, same coach shows signs of passenger attrition. Sleeping car this day was even emptier, with 4 spaces sold.



AUSTERE DINING FACILITIES provide economies for both railroad and passengers—yet diners that cost NP $26,000 a month return only $10,700 in gross revenues.

TRADITIONAL COMPLAINT of high diner prices is not heard on the Mainstreeter.

ECONOMIES FAIL TO MAKE UP FOR LOST BUSINESS

SHIFT OF MOST MAIL from rail to air has cut severely into revenues of Mainstreeter and other passenger trains.

STAPLES, MINN., station is one of old railroad depot types. It's clean, bright—and empty—as Mainstreeter pulls in.

Then you carry it all to a table. If you need help, one of the two buffet attendants will provide it.

● **No "garbage cans."** After the meal you comply with the request on the card on the table:

"Please bus your dishes to the containers at either end of this car. Your fellow passengers and the management thank you."

The containers? Not the "garbage cans" that a senator from Mainstreeter country says foul the buffet car. Rather, there are three plastic hampers lined with brown plastic disposable bags, at one end. And a disposal compartment at the other end.

No posh, obviously. Nobody pretends there is. But the women heard talking of past rides on a train "with a real diner" are not heard complaining about the prices.

● **Austerity, but . . .** Austere as it is, the buffet car (and its twin eastbound) cost Northern Pacific nearly $26,000 a month to run, stock and maintain, the railroad says (Figures cover first five months of 1969.) Revenue from the service, however, totals $10,700 per month.

The sleeping accommodations this Dec. 1 are different. The Slumbercoach is not available. There is a conventional sleeping car with bedrooms and roomettes. You get Pullman space for Slumbercoach rates.

NP says it costs nearly $28,700 a month to run the sleeping cars, while revenues total just under $3,500 each month (1969 figures).

In addition to the porter and the two buffet attendants, the Mainstreeter crew includes engineer, fireman, conductor, head brakeman and rear brakeman. Eight, to start. Only the buffet and sleeper men, however, go all the way to Seattle (and back). Westbound, the train requires 16 engineer changes, 15 fireman changes, nine conductor changes and 18 brakeman changes.

Wages for Mainstreeter crewmen, NP says, total $129,000 per month.

● **The employee viewpoint.** Talk to the crew this Dec. 1, and you are impressed by the pride they seem to display. The Mainstreeter is a good train, they say, and it's a shame nobody rides it.

"Nobody knows about it," a conductor says. Other crewmen seem to share that belief. A little advertising would go a long way, they say.

Advertising? NP says it spent $19,000 in 1968 for newspaper ads about the Mainstreeter and $20,100 for radio spots. Not much, not enough, the crewmen say. Too much, in proportion to Mainstreeter revenue, NP replies. True, more advertising might draw some passengers, but ads couldn't draw enough even to pay for their own cost, NP says.

● **How many seats filled—for how long?** So you board the train at St. Paul. You wait until the train is moving out of Minneapolis, however, before you check the patronage.

You look. You're impressed. People. Eighty-four of them out of Minneapolis. However, 551 miles later, before you leave the Mainstreeter at Dickinson, N.D., you look again. You discover you've outlasted most of the original 84. Out of Fargo, N.D., (252 miles), the passengers already are down to 56. At Dickinson, there are about 25.

Of the original 84, just four are using the sleeping car. There are two couples with sleeper space. The first is bound for Pasco, Wash. (1,640 miles), the second for Spokane (1,495) miles). Of the original 84, only two are going all the way to Seattle, the conductor says.

And this is Monday, the conductor adds, normally a "good" day. Tuesday, Wednesday and Thursday, it would be down to 40, he says.

It all seems to reflect an NP statement that for the first five months of 1969, the Mainstreeter carried an average of 36 persons per trip. Summer and holiday business is better, but not enough to cause a substantial rise in the general average per trip, NP says.

● **Short-haul business.** The Dec. 1 experience also seems to support the contention that the average length of a passenger's trip is about one-sixth of the entire route. The average range is 300 to 350 miles, NP says. The peak

areas seem to be Twin Cities-Fargo and Spokane-Seattle. Through Dakota, Montana and Idaho, 30 passengers seems to be the norm, NP adds.

What kind of people? If Dec. 1 is any gauge, you would conclude that the Mainstreeter's passengers are overwhelmingly of the senior-citizen type. Conversations seem to center on who's going where (or has just been there) to visit children or grandchildren.

One exception is a young woman. She's one of the two long-haul coach passengers who were on at Minneapolis. She's going to Seattle to look for a job and to see if she'd like to live there.

For the first five months of 1969, NP reports $376,233 in passenger revenue. Altogether, Mainstreeter revenue for that period totals $656,528, NP says. But total Mainstreeter expenses for the same period amount to $2,264,-231. The result is a net loss of $1,607,-703, NP says.

● **On-time performance.** With smooth starts and stops all the way, the Mainstreeter reaches Dickinson on time at 6:03 p.m. (MST). It is on time all the way. At a couple stations it must wait because it arrives ahead of schedule.

There is still some U.S. mail on the train. However, without the mail that *used* to be carried, the Mainstreeter makes it to Seattle five hours earlier than before August 1968, when the train lost its mail and express loads. Mail and express in 1968 brought in nearly $1.6 million. For the first five months of 1969, the figure is $181,000.

There is a final source of revenue on the Mainstreeter—milk and cream. At Mandan, N.D., a baggage car is added at the end of the train. The car carries 100 empty cream cans. They go out from the Mandan Creamery and Produce Co. to Glendive, N.D., 205 miles west. They arrive there at 9 p.m. The cans have tags with farmers' names. At Glendive, the empties go off and are replaced with full cans for the eastbound Mainstreeter at 12:02 a.m.

Monthly revenue on cream and milk is about $4,000, NP says.

● **There's the competition.** As you look out from your coach or buffet-car window, you can see the Interstate highway system that runs parallel to the NP line on and off all the way to Seattle. You see cars and buses. You also see that you're moving faster than anything on the highway.

Stations along the line vary in style from the colonial brick building at Mandan to new steel structures to the old wooden depot. Between the Twin Cities and Dickinson, at least, they're clean and well-kept.

It's easy to keep a station clean when nobody comes around much any more. ■

LUTHER MILLER

AS THE EDITOR SEES IT

THE PASSENGER TRAIN IS DEAD—long live the passenger train! That, briefly, is the message which we hope to convey in this issue of Railway Age. Just as the town-criers of old mourned the passing of one monarch, and in the next breath announced the accession of another, so do we, in these pages, regretfully record the death of yesterday's passenger train—and proudly proclaim the birth of tomorrow's.

DEAD ARE SUCH TRAINS as Northern Pacific's "Mainstreeter" and others of its obsolete ilk, as grimly chronicled by Senior Editor Gus Welty and Washington Editor Frank Malone (p. 23 *et seq*). These trains did a good and useful job in their day; the fact that they are no longer really wanted or needed, by long-distance travellers who are increasingly auto-oriented or air-borne, is demonstrated by the great deficits which they are rolling up.

VERY MUCH ALIVE, however, is the first of the new breed trains, Penn Central's medium-haul Metroliner. Why the Metroliner is thriving, in the thickly peopled Northeast Corridor, is convincingly demonstrated by Consultant Bill Griswold in his article on pp. 30-31. The evidence turned up by Mr. Griswold hardly suggests that the Metroliners would be doing as well in, say, "Mainstreeter" territory, though the extreme fringes of railfandom would have us accept the contrary notion.

THE FIRST OF THE NEW BREED is the Metroliner. Will it also be the last? It could be—if the railroads are forced to continue to subsidize the old breed for a handful of diehards. It need not be—if the railroads are permitted to try to meet tomorrow's demands under tomorrow's new set of ground-travel rules.

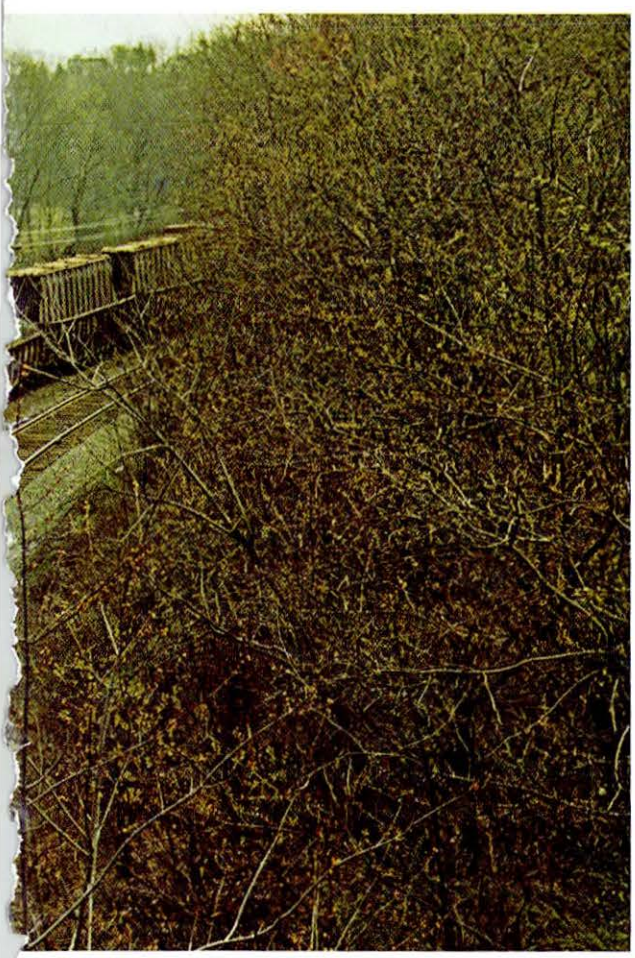
THESE NEW GROUND RULES, as tentatively developed by the Federal Railroad Administration (and explained in detail by Frank Malone on p. 33), demand certain conditions which FRA believes are met, or are about to be met, in a dozen congested areas across the land. There are at least a dozen population corridors, including Metroliner territory, where medium-distance high-speed trains appear to have a future. But that future may never come unless we can bury the past. The Interstate Commerce Commission this year has put a virtual freeze on train discontinuances, apparently in response to rising political pressures in Congress. This is one helluva way, it strikes us, to run an independent regulatory agency. And a helluva way to work toward the creation of tomorrow's railroads.

RPI
RAILWAY PROGRESS INSTITUTE

Add a few hundred miles to your assembly line.

And subtract a lot of headaches.

Pullman-Standard sells freight cars. And any part thereof.



You can order everything you need to assemble a freight car, or just the sides. Or roofs or doors or cushioning units. We can work out a shuttle system that schedules deliveries to meet your production timetable. Or even load cars for spotting in the right positions along your own assembly line.

Start seeing savings in down-time and man-hours and begin enjoying a smooth operation that results from single-source delivery.

You can share the economies and efficiencies of our full-time car parts assembly line. Why not hook it up to yours?

Pullman-Standard
WORLD'S LARGEST RAIL CAR MAKER
200 South Michigan Avenue, Chicago, Illinois 60604

A Division of Pullman Incorporated

ABOUT THOSE METROLINERS:

A consultant admits (happily) that he was wrong

By **WILLIAM E. GRISWOLD,** Associate, Systems Analysis and Research Corp.

Consultants' forecasts tend to get shelved in corporate libraries never to be heard from again, unless, of course, the forecast turns out to be correct. In this happy event, few consultants let modesty stand in the way of an opportunity to point out the accuracy of their predictions. Less frequently, however, is the consultant pleased to announce that his forecast has proven incorrect.

In May 1968, Railway Age published my article "Who Will Ride These Trains?" in which I forecast that passenger response to the TurboTrain and Metroliner services would be minimal. An increase in demand of less than 10% was predicted.

In the case of Metroliner service, this forecast was clearly too conservative. In the first nine months since Metroliner service was introduced, rail travel between New York and Washington increased by 72% over the previous year. The factor which apparently explains why passenger response to the Metroliner service has been so much greater than anticipated is a factor not normally included in "accepted" transportation forecasting methodology: anxiety.

Conventional travel demand forecasting techniques usually take into account four major characteristics. These are, in order of importance: frequency, speed, cost and accessibility.* Measured in terms of these four factors, the present Metroliner service appears to rank a poor second. One would not expect considerable diversion from other modes.

As this is published, six Metroliner round trips are operated daily between New York and Washington. For the first nine months of 1969, when a 72% increase in demand was generated, only three round trips were operated. In contrast, the airlines offer upwards of 50 daily round trips between New York and Washington. On the basis of schedule frequency, Metroliner service was not at all competitive with the service offered by the airlines.

Speed is the next most important consideration. Measuring elapsed travel time from downtown, an airline trip from downtown Washington to downtown New York requires from 2 to 2½ hours, assuming no major delay en route due to air traffic congestion. Current Metroliner schedules require from 2½ to 3 hours for the downtown to downtown trip. So, in spite of the considerable reduction in rail travel time which Metroliner offers, the rail traveler still has to allow about 30 minutes longer on a New York-Washington trip than does the airline passenger. In terms of speed, Metroliner service is not yet competitive with airline service.

Measured in terms of cost, Metroliner service fares a good deal better, as the following table shows:

Mode of Travel	One Way Fares	
	June 1969	December 1969
Airline—Coach	$19.95	$23.10
Metroliner—		
First Class	21.65	21.65
Metroliner—Coach	13.75	15.75

A traveler accustomed to flying coach between New York and Washington could travel first class on Metroliner for about the same cost. Since fares were increased in October 1969, Metroliner first class is actually cheaper than the air shuttle fare.

Alternatively, a traveler paying the Metroliner coach fare can now save $7.35 each way, or $15 round trip, compared with the cost of flying. When the lower cost of taxi fares to and from the centrally located rail terminals is included in consideration, the over-all cost of a round trip by Metroliner becomes about $25 less than an equivalent journey by air. Thus, depending on class of travel used, Metroliner is equal to or better than airline service in terms of cost.

In terms of accessibility, the fourth major factor to be considered, Metroliner again does not compare favorably with its competition. By accessibility is meant the ease with which a reservation can be made and a ticket obtained. Obviously, unless the passenger knows in advance that he is going to be able to obtain a seat, he is in most cases unwilling to set out. Recognizing this need as an essential element of travel marketing, airlines have developed fairly sophisticated computerized reservations systems which maintain an up-to-date record of seat availability for each flight. The Eastern Air Lines "Air Shuttle" service, as is well known, goes one step further by dispensing with ticketing procedures and guaranteeing a seat to all passengers who arrive on time, thereby eliminating the need for reservations and tickets. (To the experienced traveler this is a mixed blessing since the "extra section" departs up to ½ hour later than the scheduled departure time.)

Seats on the Metroliner are by comparison relatively less accessible. Penn Central offers fewer downtown locations where a ticket can be obtained, and it is generally necessary for the traveler to make a special trip to the station a day or two in advance to pick up his ticket. The high average load factors being maintained by the Metroliner service, while indicative of its popularity, also have an adverse effect on seat availability. Probability analysis indicates that at the 75% load factor which the Metroliners are averaging, one out of every two potential passengers who inquire will be told that a seat is unavailable. Under existing conditions the factor which will determine whether load factors will go any higher is not demand, but the ability of the reservations system to keep current on the availability of seats.

In October, when the number of daily Metroliner trips was doubled from three to six, some DOT spokesmen were quoted as doubting whether such high load factors could be maintained in the face of such an increase in capacity. Preliminary results indicate that load factors under the new timetable are as high or higher than they were with three trains per day. The evidence is that the demand for intercity travel in the Corridor is so great that even hourly service will not make

*Some researchers also include "comfort" but this is a very difficult concept to measure. Comfort is apparently not a factor in the modal choice decision, provided all modes offer a "reasonable" level of comfort. Comfort appears to be a factor only when all other factors are substantially equal, as when the traveler is choosing among carriers of the same mode.

THE METROLINERS have sparked a 72% increase in Washington-New York train travel. A consultant who had predicted a modest 10% increase has now taken a new look—and discovered a travel determinant the experts have heretofore overlooked

a significant dent in the total demand moving by all modes. Since better service stimulates even more demand, the last thing Metroliner management need be concerned about is over-production.

In sum, Metroliner service compares favorably with air travel in terms of cost, but ranks unfavorably with respect to frequency, speed and accessibility. Since cost is relatively unimportant to the businessman traveler, why has Metroliner service proved to be so popular?

A possible factor which emerges from on-train interviews with passengers is that the Metroliner service generates less *anxiety* than does a comparable trip by air. This is not to say that businessmen are afraid to fly; on the contrary, flying is usually fun. But the process of completing a New York-Washington trip by air requires the fairly continuous and active participation of the passenger, at least subconsciously.

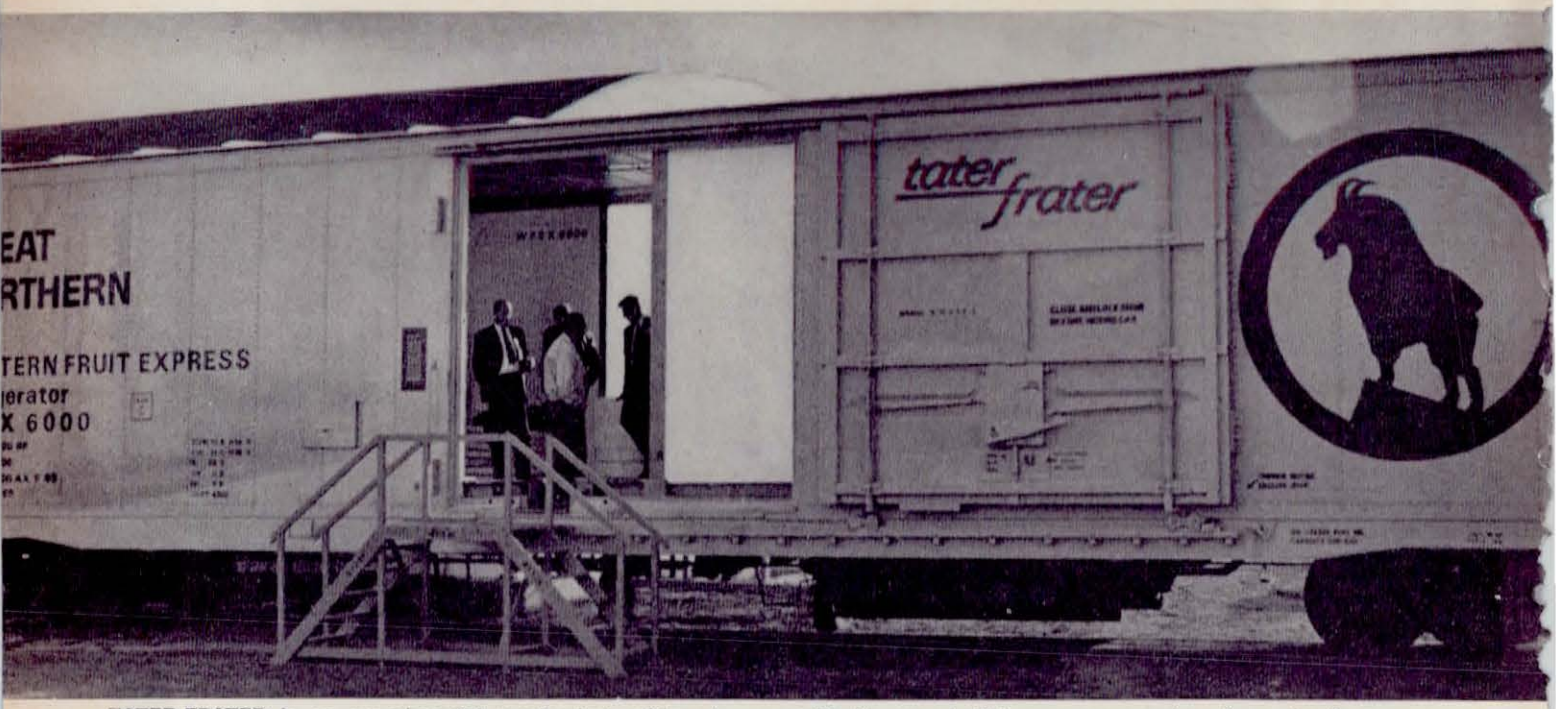
First, there is the problem of finding a taxi, not an insignificant problem in New York. En route frequent reference to your wristwatch is needed to determine whether you will make it to the airport on time. Once there, you must wait in line and judge by the number of people ahead of you whether you will make the first section. (If you don't, the Metroliner would have been faster.) When you are settled in your seat, it is time to "fasten your seat belt and place your seat back in a full upright position." Then, as the plane taxis out to the runway, you count the number of planes in line ahead of you and calculate the approximate delay until takeoff. Seasoned "Air Shuttle" veterans can easily recall the remainder of the ritual. Only during the brief 30-minute cruise between takeoff and landing does the average passenger find himself free of travel responsibilities and able to concentrate his attentions elsewhere.

In contrast, the Metroliner passenger need actively participate in the progress of his journey only for a few minutes at the beginning and end of his trip. One of the appeals of Metroliner service which businessmen mention frequently is the fact that they can look forward to two *uninterrupted* hours en route when they can read a report or prepare for the day's meetings. Freedom from interruption is really another way of saying freedom from anxiety. So long as the train remains in motion, no active participation is required of the traveler.

For travelers who have switched to the Metroliner, relative or perceived speed appears to be more important than absolute speed. The freedom from en route delays and relative certainty of on-time arrival make Metroliner the preferred mode of travel.

Passenger response to the Metroliner service is all the more remarkable since it has been stimulated by a service which in terms of frequency, speed and accessibility is not yet competitive with airline service. What this suggests is that no new "space age" technology is required to accomplish a fairly dramatic reduction in airways congestion in the Northeast Corridor. If a 72% increase in demand can be achieved on the basis of three trains per day, it seems apparent that a schedule offering departures every hour on the hour, with further gradual reductions in running time, and implementation of planned improvements in the reservations system, should result in a substantial diversion of present New York-Washington airline passengers to Metroliner service. It is beginning to look increasingly as though the solution to the Fourth Airport problem in New York will arrive by rail.

If passenger response to an hourly Metroliner service frequency between New York and Washington is as great as it appears that it will be, one inescapable conclusion is that similar service should be offered between New York and Boston, presumably via a new electrified right-of-way over an inland route through Connecticut. ■



TATER-FRATER is an experimental mechanical refrigerator car with its own built-in conveyor system for unloading.

New potato car has huge capacity

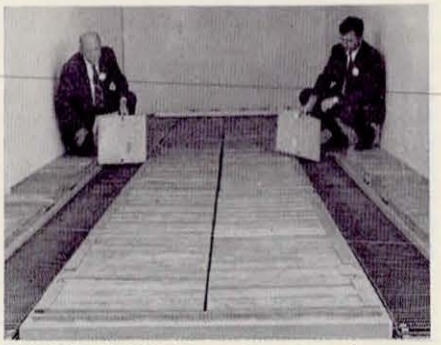
GN's Tater-Frater can haul about 2½ times as much as a conventional ice bunker car.

If you're curious and wonder how to tote taters, you might want to get in touch with the Great Northern. GN has just unveiled an experimental automatic reefer car—called Tater-Frater, and painted mellow yellow—which its marketing department thinks has the potential of becoming an industry standard for hauling potatoes.

Tater-Frater is a 62½-ft-long prototype refrigerator car built to GN specifications at the Alexandria (Va.) plant of Western Fruit Express-Fruit Growers Express-Burlington Refrigerator Express. It is in regular service in the Red River Valley of Minnesota and the Dakotas, one of the nation's major potato-raising areas.

The all-steel car, capable of carrying over 80 tons of potatoes, features a flat floor and a built-in conveyor system to facilitate unloading. Foam-insulated and fiberglas-lined, the car has automatic temperature controls which can maintain inside temperatures at, for examples, the customary 40 degrees for table stock potatoes or 60 degrees for those intended for chipping.

● **Based on marketing studies.** Tater-Frater evolved, according to G. R. Eckers, GN equipment planning specialist, from market and equipment studies conducted over the past year "to determine the ideal potato car for the marketing area served." Over the next several months, it will be subjected to numerous laboratory and operational tests from which, Eckers adds, "we hope to obtain sufficient data to determine the consist of our future potato car fleet."



DURING LOADING, pick-up boards cover Tater-Frater's dual conveyors. The boards are removed at destination to expose the conveyors for automatic unloading. The pick-up boards provide a smooth floor for sacked potatoes.

In an October test run, the experimental car handled close to 80 tons of bulk potatoes. If weather conditions had been better, it probably could have carried even more, reports M. V. Schoonover, GN's market manager-food products. Foul weather stepped in at the time of this test. Because more potatoes couldn't be gleaned from the wet fields, a hoped-for loading of 167,000 lb was just missed. Even so, it was a successful test. Although the potatoes were wet and muddy, they were delivered satisfactorily to the Old Dutch Potato Chips plant in St. Paul, Minn. So far as the test was concerned, concluded Schoonover, "the loading and unloading proceeded normally," which is what the test was all about.

● **Conveyor systems.** In most cases, a portable conveyor, provided at the loading site, will be used to load the car. When it's carrying bulk potatoes, the car's own conveyor system, which consists of a total of four on-board conveyor belts, will do the unloading. Each car end is equipped with a pair of conveyor belts. Each of the paired belts is designed to operate simultaneously with the other and thereby unload one-half of the car quickly. Once half the car is unloaded, the other dual conveyor is activated, and the process is repeated to clear the car completely. The car's conveyor system is arranged so that the dual conveyors carry the potatoes to a cross conveyor at the doorway. From there they move to the customer's conveyor and then on into storage bins.

Before being loaded, the Tater-Frater's conveyors, which are just below the level of the floor, are covered with special pickup boards. The pickup boards

create a relatively smooth car floor, thus making it possible to load sacked potatoes. If, however, bulk potatoes are loaded, then the pickup boards have to be removed at the unloading point as the car is being unloaded. The boards are removed progressively from the doorway to the end of the car as the volume of lading dwindles in the car.

This unloading feature of Tater-Frater is much like that employed in a series of mechanized potato cars developed by the Bangor & Aroostook about a decade ago. The BAR car, however, had sloping floors which directed the lading toward the car's conveyors located along the centerline of the car. Aside from having a mechanized unloading conveyor system, the BAR car also had its own loading conveyors. These were hoisted up via cables and carried near the ceiling when the car was loaded.

● **Huge capacity.** Tater-Frater's capacity of 4,706 cubic feet, about 3,000 cubic feet more than that of the conventional ice bunker car, permits it to carry about 2½ times as much as the conventional car. The car is 15 ft., 5 in. high, 10 ft., 8 in. wide, and it has a door opening of 10½ ft. Fillers can be added at the doorway to reduce the opening to 6 ft. The experimental car also comes equipped with an Emerson Detroit diesel 2-71 power unit with a 500-gallon capacity. The refrigeration unit is a York Model RRH 26-103C.

Potato hauling is a big business, with approximately 3.5 million tons moving by rail annually. The annual potato crop therefore represents in volume the major perishable commodity carried by the railroads. Within the past year, Northern Pacific placed in service first 10 prototype Conditionaire insulated covered hoppers intended primarily for service in the potato industry. That was followed in May by an order for 51 units (RA, June 2, p. 7). These 4,600-cu-ft Center Flow cars, built by ACF Industries, are fitted with heating and cooling systems to maintain precise control over lading temperature. Like the experimental Tater-Frater, these covered hoppers can carry perishable items other than potatoes.

No decision has been made to date by GN regarding the purchase of any quantity of the Tater-Fraters, says P. F. Cruikshank, assistant vice president-market planning. First, the economic return to the GN must be studied, he adds, and then some changes must be made in specifications for the car design before any purchasing action could be taken. In the meantime, the mellow-yellow Tater-Frater, with its golden brown markings, will be making the rounds of key potato-loading sites in the Red River Valley area. ■

FRANK MALONE

WATCHING WASHINGTON

WHERE ARE THE PASSENGER CORRIDORS? The Federal Railroad Administration suggests there may be 11 major corridors where high-speed trains could help relieve congestion. These are: Chicago-Minneapolis, by way of Milwaukee, 421 miles; Chicago-Cincinnati, by way of Indianapolis, 302 miles; Chicago-Cleveland, 340 miles; Chicago-St. Louis, 283 miles; Chicago-Detroit, 284 miles; Cincinnati-Detroit, 282 miles; Cincinnati-Cleveland, 260 miles; Buffalo-New York City, 436 miles; Seattle-Portland, 183 miles; Los Angeles-San Diego, 127 miles; and Pittsburgh-Philadelphia, 354 miles. This is present FRA thinking. The full plan has not yet been made public.

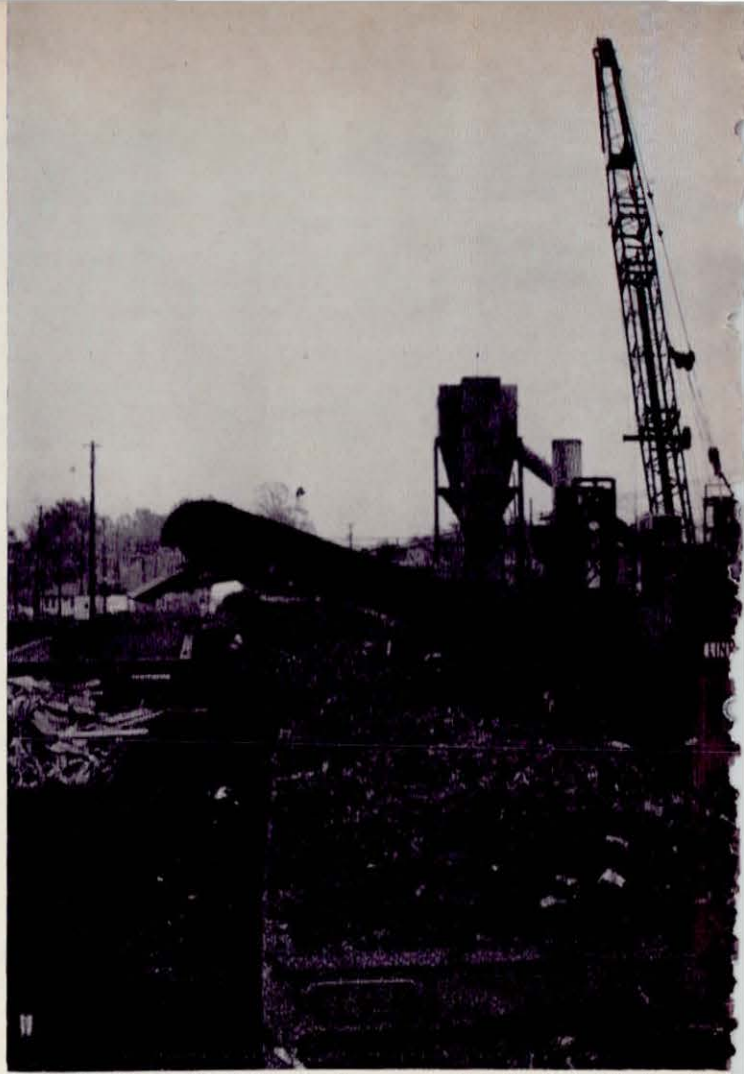
WHAT KIND OF SERVICE WOULD THEY GET? For each corridor, FRA is determining the best of five possibilities. The alternatives include: (1) upgrading of existing service with new equipment, 80-mph top speed; (2) Metroliner-type upgrading—new equipment plus some track improvements, 125-mph top speed; (3) new equipment plus realigned track, 150 mph top speed; (4) Tokaido-type upgrading—new equipment plus new roadbed, 200-mph top speed; and (5) tracked aircushion vehicles, 300 mph.

WHAT ARE FRA'S CRITERIA? Cities must have an area population of one million or more. They can be no more than 300 miles apart. Cities with the right population but more than 300 miles apart might qualify if they have important stops and/or good geographic conditions between them. Thus, Chicago-Minneapolis (421 miles) made it because FRA determined the route's geography would make a faster run workable. Los Angeles-San Francisco, 482 miles, was omitted because FRA decided rail service there could not be improved enough to compete with other modes. Cost operating competition with other modes, and demand for service were the main factors. Profitability was considered but apparently was not a determining factor.

NEXT STEP IN THE FRA ANALYSIS is determination of corridors between less-populated areas. The 11 routes listed above represent only the initial findings. Throughout, FRA is viewing both present and future ridership—what potential there is, whether it is used now or not. FRA also will determine what longer-haul routes are needed to connect the corridors. Before FRA's plan is put into final form, however, criteria beyond cost and demand may enter the picture. Political repercussions surely will hang over corridor-naming. They could warp the work of FRA analysts and computers.

Railroad rates disturb scrap shippers

But, the Institute of Scrap Iron & Steel has hopes for its "negotiate-not-litigate" policy.



LOADING MACHINE ARM extends over gondola loaded with shredded

A scrap processing yard isn't the prettiest thing to put next to a rail line. A gondola full of scrap isn't the highest-rated car to put in a train. Scrap men, however, are out to remind rail men that you can't judge a commodity by its looks.

First, they say, scrap traffic holds greater promise for rails than appearances indicate. Second, they contend, the reason that promise remains to be exploited is that for too long, scrap iron and steel has looked like a "captive" rail commodity.

Scrap men add, however, that *looking* like a captive would be acceptable if it didn't mean *living* like one. They claim they're beset not only by car-service problems that other shippers face but also by discrimination.

● **The rail view.** The railroad outlook that scrap men are trying to soften goes like this, they say:

Scrap is harder to move than its competitor, iron ore. Ore moves in larger volume per shipment, at fewer times, from fewer origins and for longer hauls. Scrap, however, moves a few cars at a time, from many origins, for a relatively short haul. These traffic characteristics are different enough to warrant widely different rates. Also, ore is easier to load, fills a car more completely, and is less damaging to equipment. And, scrap sells for a higher price and has a higher iron content than ore. Hanging over all this is a rising demand for equipment with a declining production of equipment.

"We want the business"

Despite this outlook, one rail traffic man wants it made clear that "there is no effort on the part of the railroads to discriminate against scrap shippers. We want the business and we hope to keep getting it."

● **Talk, not fight.** The scrap industry's lament, however, is tinged with hope that things will work out. William S. Story, executive vice president of the Washington-based Institute of Scrap Iron & Steel, Inc., says:

"The Institute has been advocating a policy of 'negotiate, not litigate' when it comes to dealing with the railroads. In the recent past this posture has led to extensive discussions about how to improve service and reduce the rate discrimination that we say exists.

"Many railroad personnel have expressed interest in this approach. The Institute has been involved in, and is currently conducting, many exploratory talks with carriers. Railroaders have begun to appreciate the extent of the scrap traffic potential and the unique function played by rail rates in the success of this industry."

● **What is the potential?** The first way to measure scrap's meaning for rail traffic is to look at carloadings. Although scrap loads have declined steadily since 1952, the last year they topped one million, scrap iron and steel still give the rail industry about 25 million tons of traffic and over $100 million in revenue each year.

In 1968, according to ICC figures, rail carloads of scrap by origin totalled 489,996, or 26,716,415 tons. By destination, the carloading total was 483,693, or 26,514,014 tons. Total revenue on that traffic was $115,250,558.

The second way to measure the scrap potential is to consider scrap's role in the nation's production of steel. Steelmakers use scrap from three sources as a raw material. First, there is the "home" scrap generated in the mill during the steelmaking process. Second, there is scrap that piles up in industrial plants. Third, there is scrap from obsolete products, such as autos. The second and third types of scrap are "pur-

scrap to car being loaded with sheared scrap.

HEAP OF SHREDDED SCRAP on gondola car in background will be flattened before the car is sent on its way.

Scrap comes in various forms

BALED SCRAP, like that shown here, is another big element in the steel-making process.

chased" by steel mills. They must first be processed by scrap men, and this is where transportation comes in.

Since 1957, the Institute says, consumption of purchased scrap by steel mills has risen by more than one million tons per year. In 1968, the mills used up nearly 37 million tons of purchased scrap. (That means the portion hauled by rails was about 70%.) Another raw material for steel-making—and another source of rail traffic—iron ore in its natural state or in pellets of varying iron content, is giving scrap a run for the steel producer's money. But the Institute predicts that scrap men can hold their own by tailoring their product for consumers—so long as "artificial" restraints don't dampen their competitive ability.

● **Movement geared to rails.** The main underlying fact in the discussion of scrap traffic is that scrap processors have built their operations around a base of railroad transportation.

"We are set up to receive and ship by rail, and we and our customers generally prefer to use the railroad," William Story says. He adds, however: "Railroads are forcing us to find alternate means of transport. They consider us captive and feel they can treat us as they have been doing in the past."

The typical processing facility, Story points out, is set up for both inbound and outbound rail moves. The move to the yard with un-processed scrap was designed to make cars available for outbound moves of processed scrap.

But, Story adds, "This cycle has been broken because the scrap processor cannot afford to pay the high rail rates for inbound moves. Trucks thus have taken over the major share of the inbound traffic to the processing plant. And a shift to competitive modes for outbound traffic from the plant is now noticeable, too."

The Chicago story

In Chicago, for example, as recently as 1965, little or no scrap moved by truck, the Institute says. Now, however, one truck line alone in Chicago is moving 50 loads of processed scrap into local mills each day.

In another example, a processor in Little Rock, Ark., recently switched from rails to barges for the movement of 10,000 tons of the finished product to New Orleans for export. The newly deepened Arkansas River made this diversion to barges possible, and the lower rates were eagerly accepted, the Institute says.

"Scrap will remain on the rails," story emphasizes, "and will remain an important source of railroad revenue since the scrap processor has built his operation around rail transport. But we can use the railroad only as long as we can market our goods by that mode in a reasonable manner and at reasonable rates."

● **The problem with rates.** Scrap men argue, and their arguments are supported by metallurgists, that iron ore is directly competitive with iron and steel scrap as a raw material for steel-making. Yet railroads continue to set "disproportionately" lower rates on iron ore, scrap men complain. And that gives their competitors an unjustifiable cost advantage, they add.

Right now, the rate on scrap is approximately three and one half times as much as the ore rate. Scrap men are *not* calling for a one-to-one ratio in most cases. They do admit some differences in the commodities. What the scrap industry views as a reasonable ratio would be one and a half to one.

The rate issue was aired last year, before the ICC granted railroads a 3%

SCRAP MEN REGISTER CAR-SERVICE COMPLAINTS, TOO

to 10% rate increase, but said the rise on scrap could go no more than 5%, the exact increase approved for iron ore. In the previous rate-increase (Ex Parte 256), ICC also prevented scrap rates from rising more than ore rates. In both cases, the ICC stated its belief that ore and scrap are directly competitive.

In the railroads' most recent rate increase, however, ICC gave its permission for an across-the-board 6% rate raise. The Institute is taking its case to ICC again, during the Commission investigation of how the increases work out (RA, Nov. 24, p. 11).

Story says: "The 6% increase, while applying to all commodities in an apparently fair manner, actually makes the competitive posture of scrap deteriorate by 15¢ per ton when compared with iron ore. This occurs because 6% of the $4.12 average scrap rate (per car) equals 25¢ per ton more, whereas the same 6% applied to the $1.64 average ore rate equals only 10¢ more."

And the basic Institute argument goes back to the natural iron content of ore and scrap. Metallurgists have shown a 1½:1 ratio as the reasonable relationship between scrap and ore as competitive inputs for steel-making, Story says. "The scrap industry's position, therefore, is not equal rates for unequal natural iron contents. Rather, rates on competitive inputs should reflect the natural iron content contained in each, since the raw materials are purchased on that basis."

Old ratio no longer holds

However, Story adds, "The introduction of new pellets with natural iron content of 90% or more means that the 1½:1 ratio no longer holds for those pellets moving in commerce. Where such products are involved, the proper relationship, according to the scrap industry, is one to one, since the iron content is identical."

● **Car-service complaints.** Rates are one thing, car-service is another that scrap men are unhappy about. The following difficulties are listed by Story:

—Delivery of cars without weight determination for setting charges, or delays of as much as three weeks in receiving the weight statements (85% of Institute members have no scales).

—Loss of cars for "weeks" between origin and destination, which occurs many times within the same switching district.

—Accumulation of outbound or inbound cars into "sizable" groups before addition to trains for movement.

—Placement of cars in such a way that they cannot be loaded.

—Inadequacy of the number of gondola cars provided by railroads.

Rails follow the policy of supplying scrap processors only with gondola cars classified as "un-equipped." This is because rails view scrap loading as likely to damage a car, and a plain gondola stands the least chance for extensive harm.

However, some scrap men say, rails are exaggerating the concept of an equipped car to include a gondola with a few pieces of wood bracing added. This practice, plus the shrinking number of un-equipped gondolas being manufactured, puts a real crimp in distribution, scrap men say.

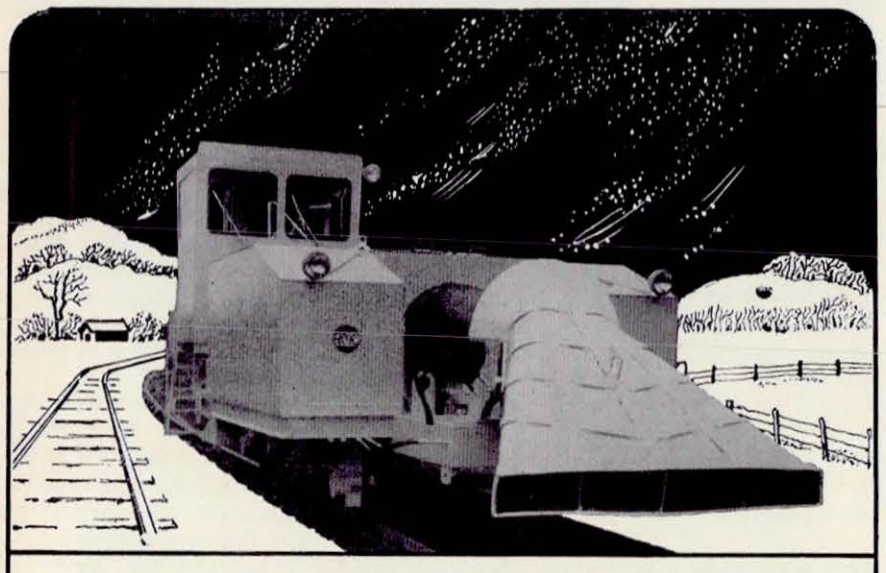
In 1968, AAR figures show, the fleet of un-equipped gondolas numbered 173,285, compared with 176,894 in 1967. Rail men are quick to point out that capacity average rose from 66.7 tons in 1967 to 68.4 in 1968. Scrap men are just as quick to add that increasing load-carrying capacity, in terms of tons, without increasing cubic space, does not help the scrap processor.

Even though one gondola now can support twice as heavy a load as before, it can't *hold* or contain it when the load is scrap, scrap men say.

The shortage of cars, scrap men add, is disrupting their assembly-line processing. And, scrap men say, men don't really understand that scrap processing *is* actually done in assembly-line fashion.

"The operation is designed to continually feed in unprepared items and feed out prepared materials," Story says. "Storage of the finished goods generally is not part of the process. Most scrap yards are designed to load directly into gondola cars from the processing machines. If no cars are waiting at the end of the line, only a limited amount of storage can be found, and then a costly second lifting is required for loading. However, once that limited storage space is consumed, the entire process comes to a halt."

And such a halt can be disastrous, Story adds. The scrap industry operates under a unique arrangement whereby an order is lost if the processor cannot deliver during the contract period—even though the material was available for shipment, Story explains. ■



Snow Coming? *Have A Blast!*

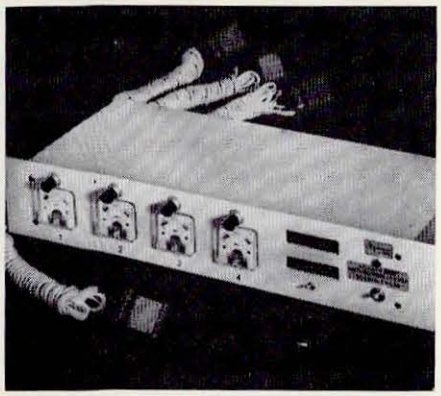
MEMBER RPI RAILWAY PROGRESS INSTITUTE

RMC Hurricane Jet Snow Blower uses a 650 mph air blast to clear snow fast. This powerful machine effectively clears switches, yards and open track. ■ **RAILWAY MAINTENANCE CORPORATION, Box 1888, Pittsburgh, Pa. 15230.**

RMC Snow Blowers

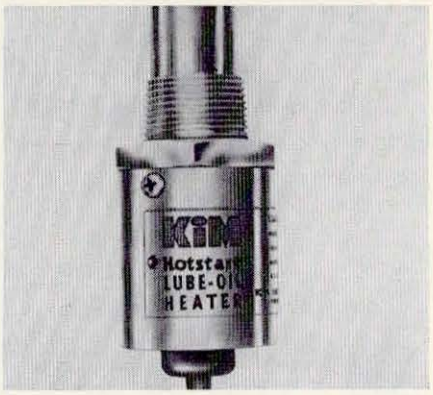
Circle 16 on coupon page 37

NEW PRODUCTS REPORT



Fume detector (RA-1)

Visual/audio warning of dangerous fumes from 97 different gases is said to be provided by Gasgard, an "extremely" sensitive, solid-state system equipped with a "Cold" Adsorptive sensor. It provides warning at installation site, or will sound alarm many miles from area of gas contamination. Basic unit has multi-sensors and multi-audio/visual indicators and is packaged to accommodate existing racks, consoles, or control panels. *United Recording Electronics Industries.*

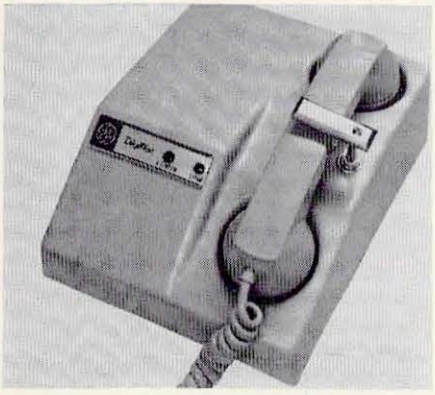


Oil heater (RA-2)

The Model OL6323 lube-oil heater is said to maintain the oil sump at operating temperatures at all times and to keep oil free-running in coldest climate. In operation, heater is installed at a low point in sump to allow for heat rise. It operates on 230 volts and provides 300 watts of heat. Probe, 4⅞ in. long, is capable of heating oil sumps of 5 to 15 gallons capacity. Heater is best operated in conjunction with a Kim-Stat thermostat and Kim engine water jacket preheater. *Kim Hotstart Mfg.*

Temperature recorders (RA-3)

The E-Cell, heart of the electronic temperature recorder, is made of gold and silver and is smaller than fuse of an automobile electrical system. Once activated by bracketing recorder on wall of truck or railcar, silver is plated to gold by ions, the number determining exactly what is happening, both in time and temperature. When E-Cell is placed in computer, mechanism spells out, in reverse, exactly what happened, both by time and temperatures, while unit was in transit. *Monitemp Corp.*



Data sets (RA-4)

Four new DigiNet acoustically-coupled data sets are the TDM-114 and TDM-115 series. A twofold handset/modem mating device locks the telephone receiver into the DigiNet modem for positive telephone coupling and more reliable signal transmission. A spring-loaded clamp holds the handset firmly and prevents uncoupling. Twist-lock action automatically activates the DigiNet data set when the locking arm is swung into place. New acoustic seals with softer cushions provide better contour compliance for all typical ("500" type) telephone handsets. They improve signal-to-noise ratio to provide more accurate digital communication.

These acoustically-coupled data sets comply with tariffs covering use of acoustic couplers on the switched network. The units are compatible with Western Electric 103A2 and General Electric TDM-110 and TDM-111 data sets. The new sets measure 4 in. high, 7½ in. wide and 9 in. deep. The TDM-114 originate-only models weigh 6 lb, and the TDM-115 originate/answer models weigh 7 lb. *General Electric Telecommunications Products Department.*

RAILWAY AGE
THE TRANSPORTATION WEEKLY

30 Church Street, N.Y., N.Y. 10007 READERS' SERVICE (Att. J. Lindstrom)

PLEASE SEND ADDITIONAL INFORMATION ABOUT PRODUCTS IN ADVERTISEMENTS NUMBERED: 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16

PLEASE SEND INFORMATION ABOUT PRODUCTS DESCRIBED ON PAGE 37 MARKED: RA-1 RA-2 RA-3 RA-4

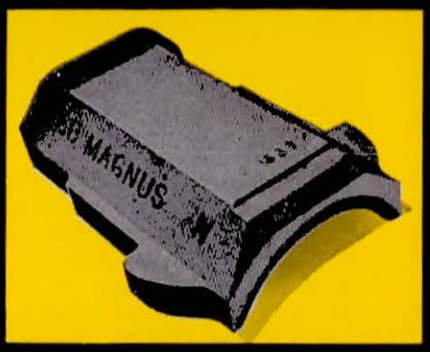
NAME ..... TITLE .....

COMPANY .....

ADDRESS .....

CITY ..... STATE ..... ZIP .....

• Inquiries can be processed only if title and company are shown. 12/15/69



Buy traction bearings, journal bearings, engine bearings or roller bearings from Magnus, paints from Dutch Boy,® pigments from Titanium Pigment Division, or drilling mud from Baroid,

and you're dealing with National Lead.

A good company to deal with...as proven by more than 200 product lines; 50 divisions, subsidiaries and affiliates; 100 mines, mills and plants throughout the country; and annual sales of more than $750-million. Any way you look at it, it's a good deal.

RAILROAD BEARINGS
National Lead
Magnus Metal Division

Your one source for all bearings. From plants in all rail centers.

Circle 14 on coupon page 37

no one knows caboose construction

inside and

out like we do

If you are using our cabooses you know it. If we haven't built any for you lately, isn't it about time you learned what high quality is in a caboose car?

INTERNATIONAL CAR CO

835 ENGLEWOOD AVENUE • BUFFALO, N. Y. 14223

MEMBER RPI RAILWAY PROGRESS INSTITUTE

Representatives:
M. H. Frank — Cleveland, O. • Prest Company — St. Paul, Minn.
R. B. Hornberger — San Francisco, Cal. • F. E. Ross, Jr. — St. Louis, Mo.
E. J. Hasten, Jr., W. B. Reed — Chicago, Ill.

A Part of NATIONWIDE INDUSTRIES, INC.

Circle 15 on coupon page 41

Tom Kole
REA Express

Norman M. Stone
Seatrain

R. M. Jochner
SP

Lewis H. Monk
SP

PEOPLE

LEHIGH VALLEY.—William R. Post appointed division sales manager, Bethlehem, Pa.

MISSOURI PACIFIC-TEXAS & PACIFIC.—F. J. Ronk named district coordinator management information division-installations, Kansas City, Mo.

REA EXPRESS.—Tom Kole, vice president—marketing, New York, elected executive vice president.

SEATRAIN LINES, INC.— Norman M. Stone has been named director of public relations and advertising at Edgewater, N.J. (RA, Dec. 8, p. 36). Mr. Stone was formerly manager of public relations, **Penn Central,** New York

SOUTHERN FREIGHT ASSOCIATION.—H. M. Miller appointed assistant to chairman, Atlanta, Ga.

SOUTHERN PACIFIC.—Robert M. Jochner, passenger traffic manager, named general manager of passenger and government traffic. **Lewis H. Monk,** assistant passenger traffic manager, appointed assistant general manager of passenger and government traffic.

SOUTHERN WEIGHING & INSPECTION BUREAU.—Charles E. Pike, general eastern supervisor, Richmond Va., elected manager, Atlanta, Ga., succeeding **Leroy E. Ford,** who retired Dec. 1, after 48 years of railroad service.

TERMINAL RAILROAD ASSN. OF ST. LOUIS.—William P. Bittle named general claim agent, to succeed **Harold H. Klein,** retired.

MARKET OUTLOOK

CARLOADINGS

Loadings of revenue freight in the week ended Dec. 6 totaled 558,984 cars, the Association of American Railroads announced on Dec. 11. This was an increase of 42,388 cars, or 8.2%, compared with the previous week; an increase of 11,859 cars, or 2.2%, compared with the corresponding week last year; and an increase of 3,439 cars, or 0.6%, compared with the equivalent 1967 week. Ton-miles generated by carloadings in the week ended Dec. 6 are estimated at 15.3 billion, an increase of 5.9% above the corresponding week of 1968, and 7.1% above the 1967 week.

REVENUE FREIGHT CARLOADINGS

Commodity	Nov. 29 week	Preceding week	Per cent change
Grain	25,367	30,516	—16.9
Farm products	25,308	28,162	—10.1
Metallic ores	33,500	38,216	—12.3
Coal	97,844	106,941	— 8.5
Crushed stone, gravel & sand	25,455	28,316	—10.1
Nonmetallic minerals	9,645	9,783	— 1.4
Grain mill products	20,145	21,849	— 7.8
Food & kindred products	23,574	26,293	—10.3
Primary forest products	22,169	24,409	— 9.2
Lumber & wood products (except furniture)	13,994	15,557	—10.0
Pulp, paper & allied products	23,909	25,512	— 6.3
Chemicals & allied products	26,012	29,074	—10.5
Petroleum products	9,791	11,809	—17.1
Stone, clay & glass products	17,613	20,231	—12.9
Coke	8,969	9,573	— 6.3
Metals & products	26,592	28,078	— 5.3
Motor vehicles & equipment	21,329	25,333	—15.8
Waste & scrap materials	13,595	14,811	— 8.2
Forwarder & shipper assn. traffic	7,289	8,254	—11.7
All other carloads	62,981	70,667	—10.9
LCL traffic	1,515	1,755	—13.7
Total cars loaded	516,596	575,139	—10.2

CUMULATIVE TOTAL, 48 WEEKS	1969	1968	1967
	26,263,125	26,273,723	26,094,349
Estimated revenue ton-miles (billions) 48 weeks	711.5	692.1	667.4

PIGGYBACK CARLOADINGS

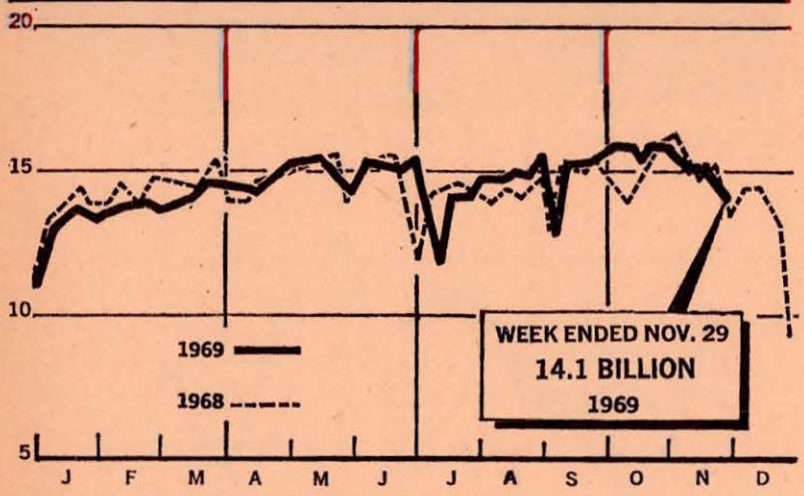
U. S. piggyback loadings for the week ended Nov. 29 totaled 23,739 cars, carrying 38,380 trailers, compared with 23,098 cars, carrying 37,151 trailers, in the corresponding 1968 week. Loadings for 1969 up to Nov. 29 totaled 1,249,700 cars, carrying 2,057,769 trailers, compared with 1,241,582 cars, carrying 2,022,577 trailers, in the corresponding period of 1968.

IN CANADA

Cumulative	Revenue Cars Loaded	Total cars Rev'd. from Connections
Nov. 14, 1969	3,166,851	1,067,051
Nov. 14, 1968	3,292,078	1,077,006

RAIL FREIGHT TRAFFIC TRENDS

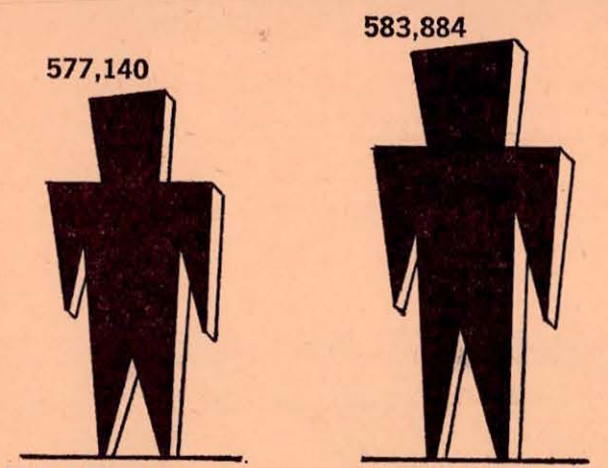
BILLION TON-MILES (Estimated)



Source: Association of American Railroads

RAILROAD EMPLOYMENT

(CLASS I LINE-HAUL RAILROADS)



Source: Bureau of Accounts, ICC.

Current Statistics

Net income, Class I roads	
Nine months, 1969	$372,000,000
Nine months, 1968	388,000,000
New freight cars on order	
Nov. 1, 1969	42,043
Nov. 1, 1968	21,388
New freight cars delivered	
10 mos., 1969	57,032
10 mos., 1968	47,599
Serviceable cars	
Oct. 1, 1969	1,361,374
Oct. 1, 1968	1,386,742

YOU OUGHT TO KNOW

Penn Central delays bow of new Metroliners

Penn Central was supposed to have added six new Metroliners to its present schedule of 12 on Dec. 14. It did not do so because, said Howard C. Kohout, the road's vice president, passenger service, "equipment difficulties caused by mechanical and electrical defects which have developed in the cars under service conditions . . . while not jeopardizing the present frequency of service, make it impossible to increase the runs by 50%, as we had hoped." Penn Central Chairman Stuart T. Saunders had announced the planned increase in Chicago Nov. 20.

Delayed vote on passenger subsidy due this week

The Senate Commerce Committee, which originally scheduled a vote on passenger-train subsidies for Dec. 10, continued last week to examine the draft bill (RA, Dec. 8, p. 7) and rescheduled its vote for Dec. 15. There seemed to be a strong chance that the draft bill would be changed to provide operating subsidies up to 80% of losses, rather than the original 75%.

SCL'S "fun run" to Florida opens 82nd season

Seaboard Coast Line's premium fare Florida Special opens its 82nd year of service at 11:15 a.m. December 19 when the first train of the season departs New York's Penn Station. At 4:15 p.m. the same day, the first northbound train leaves Miami for New York. Often called the "fun run," the Florida Special features a recreation car in which passengers are entertained during the 24-hour journey. This season's fun fare includes current movies, color television, fashion shows, song fests, bingo and other games. As in the past, complimentary champagne is an added attraction during candlelight suppers.

DOT releases high-speed rail studies

The Department of Transportation last week made public two studies which it said point the way to 300-mph train speeds. The reports are: Westinghouse Electric's *Power Systems for High Speed Ground Transportation* (PB 186-232), and General Electric's *Power Collection by Sliding Contact Methods for High Speed Guided Vehicles* (PB 185-449). They are available from the Department of Commerce, Clearinghouse for Federal Scientific and Technical Information, Springfield, Va. 22151. DOT said the Westinghouse Electric study "focuses on electric power systems, power distribution, power collection and power conditioning and is expected to be a valuable reference work for transportation engineers designing high speed ground transportation systems during the next decade." The General Electric study "focuses on electric power collection and materials requirements."

No tech changes without labor OK says high court

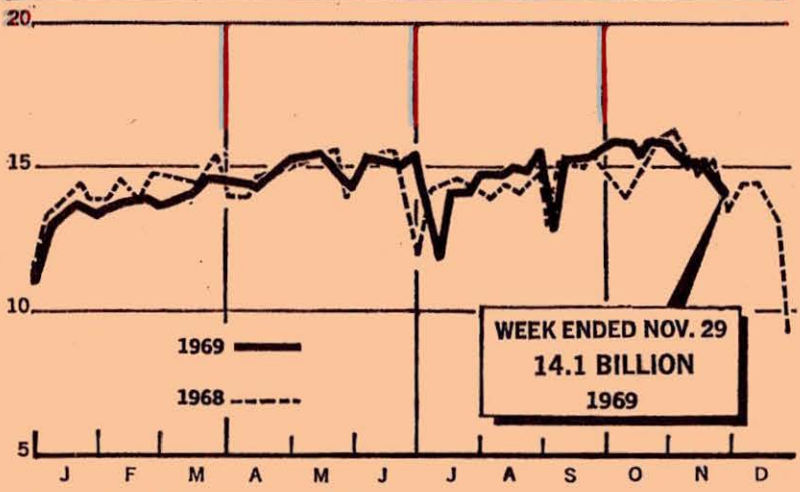
Railroads cannot make major technological changes without bargaining with their unions, the Supreme Court ruled last week in a 6-to-2 decision. The decision specifically disapproved an attempt by the Detroit & Toledo Shore Line to open a new terminal at Trenton, Mich. The railroad's main line runs from Toledo to Detroit. Until 1961, crew assignments started and ended in Toledo. When business increased in Trenton, 33 miles from Toledo, the line decided to establish a new terminal there rather than pay overtime for transporting crews to the town. The United Transportation Union argued that establishing a terminal is a major decision that requires negotiation. This argument was upheld by the U.S. Circuit Court of Appeals in 1968 and by the Supreme Court last week.

CTA facing a $21.7 million "deficiency"

The Chicago Transit Authority has added up its revenue and expense projections for 1970—and a $21.7 million "deficiency" is in the offing. By CTA estimates, revenues of $183.2 million will fall $7.1 million short of covering debt payment, and on top of that there is a $14.6 million provision for depreciation.

RAIL FREIGHT TRAFFIC TRENDS

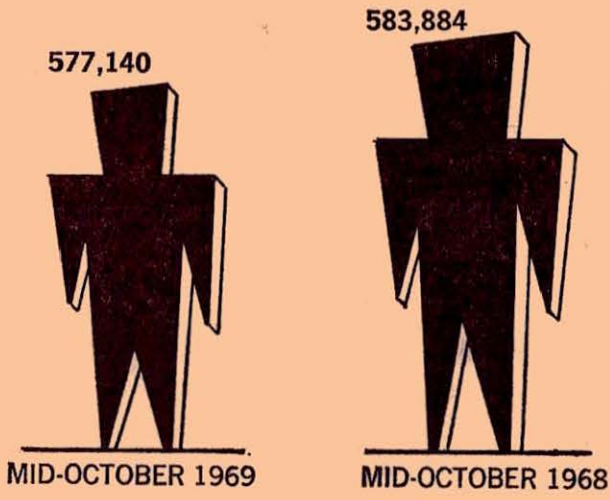
BILLION TON-MILES (Estimated)



Source: Association of American Railroads

RAILROAD EMPLOYMENT

(CLASS I LINE-HAUL RAILROADS)

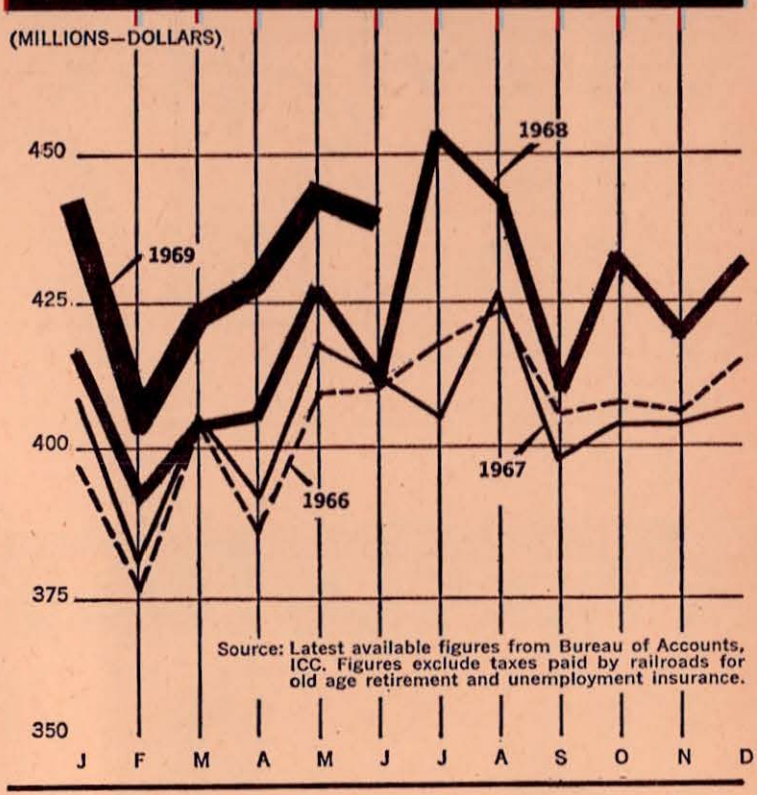


Source: Bureau of Accounts, ICC.

Current Statistics

Net income, Class I roads	
Nine months, 1969	$372,000,000
Nine months, 1968	388,000,000
New freight cars on order	
Nov. 1, 1969	42,043
Nov. 1, 1968	21,388
New freight cars delivered	
10 mos., 1969	57,032
10 mos., 1968	47,599
Serviceable cars	
Oct. 1, 1969	1,361,374
Oct. 1, 1968	1,386,742

WAGE STATISTICS
CLASS I LINE-HAUL RAILROADS



Source: Latest available figures from Bureau of Accounts, ICC. Figures exclude taxes paid by railroads for old age retirement and unemployment insurance.

NEW ORDERS FOR MACHINE TOOLS*

	October 1969 ($000)	October 1968 ($000)	10 mos. 1969 ($000)	10 mos. 1968 ($000)
Metal cutting tools	86,400	78,550	1,030,950	871,600
Metal forming tools	39,500	56,350	469,800	275,000

MACHINE TOOL SHIPMENTS*

	October 1969 ($000)	October 1968 ($000)	10 mos. 1969 ($000)	10 mos. 1968 ($000)
Metal cutting tools	101,400	107,750	978,900	1,124,600
Metal forming tools	40,800	32,900	329,900	304,150

*Including foreign and domestic.
Source: National Machine Tool Builders' Association.

MARKET OUTLOOK

CARLOADINGS

Loadings of revenue freight in the week ended Dec. 6 totaled 558,984 cars, the Association of American Railroads announced on Dec. 11. This was an increase of 42,388 cars, or 8.2%, compared with the previous week; an increase of 11,859 cars, or 2.2%, compared with the corresponding week last year; and an increase of 3,439 cars, or 0.6%, compared with the equivalent 1967 week. Ton-miles generated by carloadings in the week ended Dec. 6 are estimated at 15.3 billion, an increase of 5.9% above the corresponding week of 1968, and 7.1% above the 1967 week.

REVENUE FREIGHT CARLOADINGS

Commodity	Nov. 29 week	Preceding week	Per cent change
Grain	25,367	30,516	—16.9
Farm products	25,308	28,162	—10.1
Metallic ores	33,500	38,216	—12.3
Coal	97,844	106,941	— 8.5
Crushed stone, gravel & sand	25,455	28,316	—10.1
Nonmetallic minerals	9,645	9,783	— 1.4
Grain mill products	20,145	21,849	— 7.8
Food & kindred products	23,574	26,293	—10.3
Primary forest products	22,169	24,409	— 9.2
Lumber & wood products (except furniture)	13,994	15,557	—10.0
Pulp, paper & allied products	23,909	25,512	— 6.3
Chemicals & allied products	26,012	29,074	—10.5
Petroleum products	9,791	11,809	—17.1
Stone, clay & glass products	17,613	20,231	—12.9
Coke	8,969	9,573	— 6.3
Metals & products	26,592	28,078	— 5.3
Motor vehicles & equipment	21,329	25,333	—15.8
Waste & scrap materials	13,595	14,811	— 8.2
Forwarder & shipper assn. traffic	7,289	8,254	—11.7
All other carloads	62,981	70,667	—10.9
LCL traffic	1,515	1,755	—13.7
Total cars loaded	516,596	575,139	—10.2

CUMULATIVE TOTAL 48 WEEKS	1969	1968	1967
	26,263,125	26,273,723	26,094,349
Estimated revenue ton-miles (billions) 48 weeks	711.5	692.1	667.4

PIGGYBACK CARLOADINGS

U. S. piggyback loadings for the week ended Nov. 29 totaled 23,739 cars, carrying 38,380 trailers, compared with 23,098 cars, carrying 37,151 trailers, in the corresponding 1968 week. Loadings for 1969 up to Nov. 29 totaled 1,249,700 cars, carrying 2,057,769 trailers, compared with 1,241,582 cars, carrying 2,022,577 trailers, in the corresponding period of 1968.

IN CANADA

Cumulative	Revenue Cars Loaded	Total cars Rev'd. from Connections
Nov. 14, 1969	3,166,851	1,067,051
Nov. 14, 1968	3,292,078	1,077,006

FREIGHT-TRAIN CARS

● *Orders and deliveries.*—Orders were placed in October for 3,782 new freight cars, compared with 4,504 ordered in September and 9,793 in October 1968. In addition, 590 rebuilds were ordered in October, compared with 611 in September and 620 in October 1968. Backlog of new cars on order and undelivered on Nov. 1 was 42,043, compared with 45,133 on Oct. 1 and 21,388 on Nov. 1, 1968.

FREIGHT-TRAIN CARS DELIVERED AND ORDERED IN OCTOBER AND BACKLOG OF ORDERS ON NOV. 1, 1969

DELIVERED

	Oct. 1969	Sept. 1969	Oct. 1968
Built new by car builders	5,181	4,879	3,319
Built new in R. R. shops	1,791	2,002	1,214
Built new—total	6,972	6,881	4,533
Rebuilt	631	597	1,345
TOTAL DELIVERED	7,603	7,478	5,878

ORDERED

To be built by car builders	3,148	4,021	6,775
To be built new in R. R. shops	634	483	3,018
To be built new—total	3,782	4,504	9,793
To be rebuilt	590	611	620
TOTAL ORDERED	4,372	5,115	10,413

ON ORDER AND UNDELIVERED

	Nov. 1, 1969	Oct. 1, 1969	Nov. 1, 1968
To be built new by car builders	36,920	38,853	16,048
To be built new in R. R. shops	5,123	6,280	5,340
To be built new—total	42,043	45,133	21,388
To be rebuilt	4,364	4,405	4,595
TOTAL ORDERED	46,407	49,538	25,983

LOCOMOTIVES

● *Canadian Pacific.*—Has ordered 80 diesel-electric locomotive units. MLW-Worthington will build, at a cost of $28 million, 44 3,600-hp units, 29 3,000-hp units and one 4,000-hp unit. The 4,000-hp unit was described as a "prototype" unit. General Motors of Canada will build six 2,000-hp, four-axle units at a cost of $1.8 million.

TRANSIT

● *Toronto Transit Commission.*—Has awarded a contract to build 5,164 lineal feet of twin 16-ft-diameter cast iron and precast concrete tunnels to the low bidder—S. McNally & Sons, Ltd., Hamilton, Ont.—at a price of $6,983,000. The tunnel section to be built by McNally—on TTC's Yonge Subway northern extension—will run from just north of York Mills Road to about Sheppard Ave. An additional 314 lineal feet of 16-ft access tunnel is included in the contract. This is the third and final contract for tunnel work on the current subway extension. Major structural contracts still to be awarded are for Lawrence and Sheppard Stations.

YOU OUGHT TO KNOW

Penn Central delays bow of new Metroliners

Penn Central was supposed to have added six new Metroliners to its present schedule of 12 on Dec. 14. It did not do so because, said Howard C. Kohout, the road's vice president, passenger service, "equipment difficulties caused by mechanical and electrical defects which have developed in the cars under service conditions . . . while not jeopardizing the present frequency of service, make it impossible to increase the runs by 50%, as we had hoped." Penn Central Chairman Stuart T. Saunders had announced the planned increase in Chicago Nov. 20.

Delayed vote on passenger subsidy due this week

The Senate Commerce Committee, which originally scheduled a vote on passenger-train subsidies for Dec. 10, continued last week to examine the draft bill (RA, Dec. 8, p. 7) and rescheduled its vote for Dec. 15. There seemed to be a strong chance that the draft bill would be changed to provide operating subsidies up to 80% of losses, rather than the original 75%.

SCL'S "fun run" to Florida opens 82nd season

Seaboard Coast Line's premium fare Florida Special opens its 82nd year of service at 11:15 a.m. December 19 when the first train of the season departs New York's Penn Station. At 4:15 p.m. the same day, the first northbound train leaves Miami for New York. Often called the "fun run," the Florida Special features a recreation car in which passengers are entertained during the 24-hour journey. This season's fun fare includes current movies, color television, fashion shows, song fests, bingo and other games. As in the past, complimentary champagne is an added attraction during candlelight suppers.

DOT releases high-speed rail studies

The Department of Transportation last week made public two studies which it said point the way to 300-mph train speeds. The reports are: Westinghouse Electric's *Power Systems for High Speed Ground Transportation* (PB 186-232), and General Electric's *Power Collection by Sliding Contact Methods for High Speed Guided Vehicles* (PB 185-449). They are available from the Department of Commerce, Clearinghouse for Federal Scientific and Technical Information, Springfield, Va. 22151. DOT said the Westinghouse Electric study "focuses on electric power systems, power distribution, power collection and power conditioning and is expected to be a valuable reference work for transportation engineers designing high speed ground transportation systems during the next decade." The General Electric study "focuses on electric power collection and materials requirements."

No tech changes without labor OK says high court

Railroads cannot make major technological changes without bargaining with their unions, the Supreme Court ruled last week in a 6-to-2 decision. The decision specifically disapproved an attempt by the Detroit & Toledo Shore Line to open a new terminal at Trenton, Mich. The railroad's main line runs from Toledo to Detroit. Until 1961, crew assignments started and ended in Toledo. When business increased in Trenton, 33 miles from Toledo, the line decided to establish a new terminal there rather than pay overtime for transporting crews to the town. The United Transportation Union argued that establishing a terminal is a major decision that requires negotiation. This argument was upheld by the U.S. Circuit Court of Appeals in 1968 and by the Supreme Court last week.

CTA facing a $21.7 million "deficiency"

The Chicago Transit Authority has added up its revenue and expense projections for 1970—and a $21.7 million "deficiency" is in the offing. By CTA estimates, revenues of $183.2 million will fall $7.1 million short of covering debt payment, and on top of that there is a $14.6 million provision for depreciation.

Advertisers Index

ACF Industries 16-17

American Oil Company 14-15

Collins Radio Company 6

General Steel Industries, Inc. 13

Greenville Steel Car Co. 4

International Car Corp. 40

Lenkurt Electric Company 18-19

Miner Div., W. H. 6B

National Car Rental Systems, Inc. 6A

National Castings Division 10-11

National Lead Company 38-39

PPG Industries ..... IBC

Pullman-Standard 28-29

Railway Maintenance Corp. 36

Rockwell Manufacturing Co. ..... BC

Servo Corporation of America 21

Timken Roller Bearing Company, The IFC-3

RAILWAY MAILING LISTS

Planning any direct mail campaigns to dramatize your products or services to the railway industry? Want to be right-on-target to all the buyers and specifiers . . . then write for our mailing list brochure that tells you how you can do it.

SIMMONS-BOARDMAN PUB. CORP.
Direct Mail Service Div.
Box 961
Bristol, Conn. 06010
(203-582-9546)

C. P. R. 1057 FOR SALE

Canadian Pacific Steam Locomotive #1057 built 1912 460 configuration. Complete with all fittings. Available immediately. Write:

BOX NO. 51, Railway Age,
30 Church St.,
New York, N.Y. 10017

HAVE A HEART
SUPPORT
YOUR
HEART FUND

RADIO-COMMUNICATIONS TECHNICIAN — Alexandria, Va. area. Applicant must be high school graduate with at least a second-class FCC Radio License. Salary based on education and previous experience. Liberal fringe benefits. Railroad will pay relocation expenses. Contact Mr. T. B. Choate, Director of Personnel, Richmond, Fredericksburg and Potomac Railroad Co., Room 209 Broad Street Station, Richmond, Virginia 23220. An equal opportunity employer.

BRIDGES FOR SALE

1—2400' Deck Plate and Thru Girder Railroad Bridge.

1—120' Deck Plate and Thru Plate Girded and "I" Beam Railroad Bridge.

2—60' Deck Plate Girder Railroad Bridges.

4—100' Deck Plate Girder Railroad Bridges.

Structures available with reuseable bridge ties.

Specifications available upon request.

ST. LOUIS RAILWAY SUPPLY CO.
9909 Clayton Road
St. Louis, Missouri 63124
A.C. 314-991-3100

RELAY RAIL FOR SALE

4400 N.T.—90# ARA-TYPE "A"

400 N.T.—90# A.S.C.E.

300 N.T.—70# A.S.C.E.

Rail is excellent quality 39' lengths, with matching accessories—several thousand used cross ties also available.

ST. LOUIS RAILWAY SUPPLY CO.
9909 Clayton Road
St. Louis, Missouri 63124
A.C. 314-991-3100

Advertising Sales Department

Chicago, Ill. 60602
29 E. Madison St.
(312) 641-5815
C. James Fisher—vice president—sales
Kerry F. Sheeran—regional vice president
John M. Brennan—regional sales manager
William J. Lyneis—district manager

New York, N. Y. 10007,
30 Church St., (212) 964-3060
W. Arthur Cubbage—regional sales manager
Charles E. Keil—regional sales manager

Lakewood, Ohio 44107,
12700 Lake Ave., Apt. 1302
(216) 226-8038
Harry H. Melville—vice president

Pittsburgh, Pa. 15219, Room 1230,
(412) 471-7871
Frick Building
Ronald M. Giallonardo—regional sales manager

Dallas, Tex. 75206
Noel Page Building
6400 N. Central Expressway
(214) 361-6972
Joseph Sanders

Los Angeles, Cal. 90025
11704 Wilshire Blvd.
(213) 477-4004
Fred Klaner, Jr.

San Francisco, Cal. 94133,
515 Pacific Ave.
(415) 421-7004
Lewis A. Vogler & Co.

London S. W. 1, England
01-839 6318
67/68 Jermyn St., St. James's
Max F. Holsinger, Peter Clifton, Alan Berg

Manchester 22, England
Haletop
Wythenshawe Civic Center
Ian Goulden

Paris, 8e, France
70 Rue de Ponthieu
Stephen Brown-Joussard

4 Düsseldorf-Rath
Eitelstrasse 32
Max F. Holsinger, E. Hillerbrand, Herbert Haibt, Reinhard Schomburg

Tokyo, Japan
Sun Gain Shia, Ltd.
Shiba Nikkatsu Bldg.
13, Shiba Park
Minato-Ku
C. H. Yiu, Managing Director

VIEWPOINT

What can we learn from the sober '60s?

"What a difference a decade makes!" wrote one savant last week as he looked back over the '60s. For their own part, many railroad men would shorten that line and re-punctuate it: "What? A difference?"

A cursory look at the recent past does suggest that railroads achieved at best a stand-off during the decade that was supposed to sizzle and to soar, but never quite did either for this industry.

Examine a few of the more obvious statistics. Railroad net income 10 years ago was $578 million. During the ensuing decade it rose to a high of $904 million (1966) and sank to a low of $382 million (1961). As this is written, railroads are preparing to report net income in the neighborhood of $550 million, which is just about where they started out one hopeful decade ago.

The slow movement of freight trains was a major problem 10 years ago. As railroads closed the books on the '50s, they could report an average freight train speed of only 19.5 mph between original and final terminals. It remains a major problem today. Moving into the '70s, freight trains are averaging only 20.4 mph.

There has been improvement in a few areas, the most notable being that of capital investment. In 1959, capital investment by railroads struck bottom, at $818 million. In the 10 years that followed, the figure climbed spectacularly, to a high of nearly $2 billion in that great and memorable year, 1966. It dropped sharply back to less than $1.2 billion last year; it will be slightly higher this year, though still far below the $3 billion the experts feel is needed.

There is one major difference between today's railroads and those of 10 years ago, and it is not a comforting one. It involves two closely related statistics which must go down on the minus side.

A decade ago the railroads were hauling slightly more than 44% of the nation's total freight package, in terms of ton-miles. Their share-of-the-market dropped to 43%-plus in 1961, and stayed in that neighborhood for six years—then slipped to 41.4% in 1967, and to 40.7% in 1968. There is some feeling that it may have dropped below 40% this year.

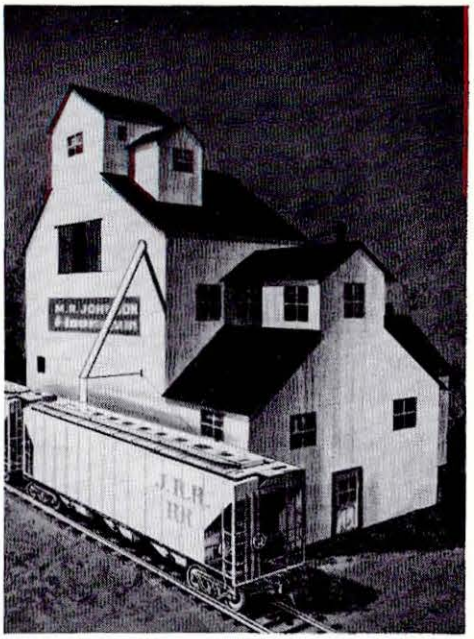
Even more disturbing is the related statistic, which says that the railroad industry's share of available freight-transportation dollars dropped from 16.9% a decade ago to around 13% today.

CHALLENGE FOR THE '70s

This pair of figures poses the real challenge for railroads as they enter a period that the Journal of Commerce last week dubbed "the sobering '70s."

If railroads learned nothing else in the sober-enough '60s, it was that their salvation as thriving, private enterprises lies mainly not in the hands of government—where their outraged cries have fallen and continue to fall on deaf ears—but in winning new business, and the right kind of new business. As good a working slogan as any in the new decade might well be: "Service in the '70s." That is the way, and the only way, to win a bigger share of the market, a bigger cut of the transportation dollar kitty—and to make the '70s simmer, if not exactly sizzle.

Pittsburgh® Paints offers 3 ways to line covered hopper cars and stationary storage facilities.



If you transport or store dry foods such as flour or sugar, or chemicals like borax or lime, Pittsburgh Paints offers you a choice of three lining systems of exceptional serviceability.

The products included in these systems have been prepared in conformance with existing regulations promulgated under the Food Additives Amendment. They are, therefore, suitable for use as a liner for bulk food materials.

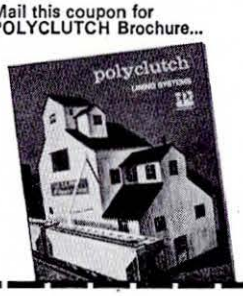
All three are non-toxic, and impart no odor or taste to commodities. They have outstanding flexibility and resistance to abrasion. They are non-porous and chemically inert; easily cleanable with steam or hot water, they provide unusual durability and economy.

The chart below shows the distinctive characteristics of all three systems. For further details, mail the coupon below.

	Original POLYCLUTCH® Liner	Double Cover POLYCLUTCH® Liner	PITHANE® Urethane System
Surfaces for which recommended:	Steel, Aluminium, Concrete	Steel, Aluminium, Concrete	Steel, Aluminium, Wood (clear only)
No. of Coats:	3	1	2
Finish:	Gloss	Low Lustre	High Gloss
Color Choice:	White, Blue	White, Blue	White, Blue, Clear, pastel colors
Application Technique:	Conventional or airless spray, hot or cold	Conventional or airless spray, hot or cold	Conventional or airless spray, hot or cold
Cleaning Method:	Clean with hot water or steam	Clean with hot water or steam	Clean with hot water or steam
A partial list of commodities protected by these systems:	Alfalfa (dehydrate) Alumina Ore Ammonium Nitrate Bauxite Bentonite Bisphenol "A" Borax Boric Acid Brewers Grits Carbon Black Cement Clays (various) Corn Cones Cottonseed Meal Diatomaceous earth Flour Gypsum Calcined Hydraulic Lime Iron ore Malt Mill Feed Milo Para Formaldehyde Powder Phosphate Rock Polyethylene Pellets Polypropylene Pellets Polystyrene Pellets Potash Rice Roofing Granules Sodium Tripoly Phosphate Soybeans Soybeans Meal Starch Sugar (cane & beet) Sulphur Tetra Sodium Pyro Phosphate Vinyl Plastic Resins		

PPG INDUSTRIES

Mail this coupon for POLYCLUTCH Brochure...



Director of Sales, National Accounts, C&R Division
PPG INDUSTRIES, INC., 1 Gateway Center, Pittsburgh, Pa. 15222

Please send me information regarding:

☐ POLYCLUTCH Lining Systems
☐ Other Railway Maintenance Finishes

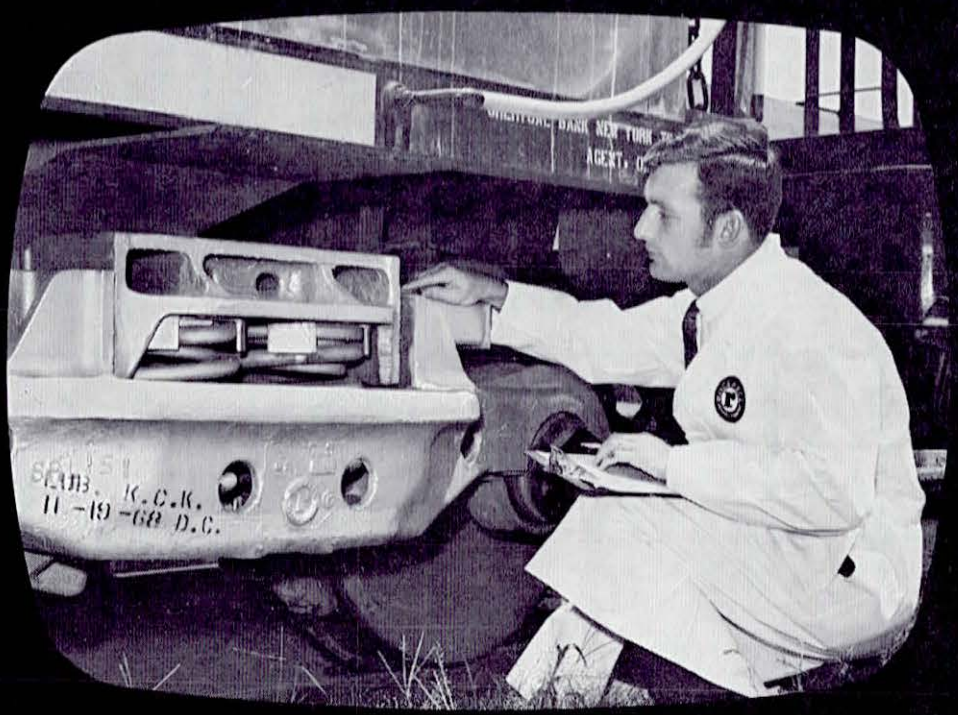
Name_____

Company_____

Address_____

City_____ State_____ Zip_____

Rockwell challenges your trucks to a TV test!



Think your trucks can take it?

Few railroads really know the true nature of truck-associated costs. You may think your present trucks are giving you "acceptable" value because of low initial investment and service life which has been barely adequate, based on yesterday's operating conditions. But how many dollars are you spending for wheels because of thin flanges? How much is your other truck maintenance costing you? How much lading and car equipment damage could be avoided by better performing trucks, particularly at today's and tomorrow's operating speeds? So what is the *true* value of those trucks?

Rockwell's Total Value Analysis *will tell it like it is!*

TV analysis shows that the premium price of Rockwell Express Trucks buys premium performance and the greatest *Total Value.*

Rockwell's design provides excellent ride performance, cushioning the lading and protecting the car equipment from damaging shock loads from the rail. In addition, the unique Rockwell equalization-tram feature substantially reduces wheel flange wear and provides safe car operation at high speeds. And it does all this with fewer parts to wear and replace. In other words, Rockwell assures a smoother, safer ride, longer, with extra load protection and lower cost per service mile.

Rockwell's not here just to talk Total Value — we're out to show positive proof of Total Value. If you've been bothered by truck costs, the Rockwell TV test is a must. *Frankly we don't think your trucks can take it.*

Make the Rockwell TV test—just call or write for details.

MEMBER RPI RAILWAY PROGRESS INSTITUTE

GROW, GROW BY THE RAIL WAY

ROCKWELL

Rockwell

MANUFACTURING COMPANY

LFM-ATCHISON DIVISION • Atchison, Kansas 66002

P.O. Box 188 • Phone: (AC 913) 367-2121

3544